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AN INVESTIGATION OF THE STANDARD OF
ACHIEVEMENT AT THE LOWER LIMIT OF THE B GROUP
IN GRADE IX SOCIAL STUDIES IN JUNE 1948

A DISSERTATION
SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF EDUCATION

FACULTY OF EDUCATION

BY


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CHAPTER I

THE PROBLEM AND ITS LIMITS

The unrestricted pass mark in Grade Nine Social Studies is a B standing. The examining board determines this pass mark by assuming that within fairly narrow limits a given percentage of the candidates will receive a grading below B. Experience has shown that 30% of the candidates fall below the B rating. The lower limit of the B group is determined by graphing the scores of a selected sample of 1,000 papers, and transmuting these scores to a range of zero to one hundred. All candidates whose transmuted score was below 45 received a grading of C or less. The examinations' board have selected specific city and town schools which they consider typical, and a fixed proportion of the sample of 1,000 cases is drawn from these schools. Every tenth paper from rural schools is selected to make up the balance. For the examination in Social Studies written in June, 1948, the raw score at the lower limit of the B zone was 43 marks out of a possible mark

of 100.

The purpose of the following study was to determine the level of achievement of those candidates who were placed at the lower limit of the B group by a process of statistical measurement. The level of achievement ~~was~~ to be expressed as objectively as possible, in order that it may be compared with the level achieved by candidates who receive the same statistical grade at a future examination. Such comparisons at periodic intervals will indicate, within broad limits, whether the pass mark is, in fact, remaining constant.

Since the material outlined in the Course of Studies for Grade IX is suggestive and not prescriptive, and since the body of material used as a basis for study is not standard in all classrooms, it was not practicable to express the level of achievement in terms of definite percentages of the factual material, vocabulary, and generalizations covered by the course. The study will show what details of the course were actually tested,

and, by extension, the extent to which the general objectives of the course have been tested. The sources of the details tested by examination will be shown, in order to indicate the adequacy of the prescribed minimum library. The analysis of candidates' responses will include the percentage of correct responses made on each objective item; the distribution of errors; the extent of the errors which were made.

The quantitative averages will not be used to determine to what degree the six general aims of the course have been realized. The examination paper is not designed to measure in quantitative terms the progress made toward the realization of general objectives. In other words, the study is non-statistical. Its purpose is to describe to what extent the details of the test paper were mastered by the average candidate. Nothing more precise than an arithmetical average is used throughout. There is no attempt to claim validity or reliability for these results. The results should be viewed as a description of the average

paper written by a student who received a minimum pass mark.

TABLE I

DISTRIBUTION OF LETTER GRADINGS IN GRADE IX
SOCIAL STUDIES 1948

<u>Grade</u>	<u>Percentage</u>
H	12.40
A	23.36
B	35.28
C	19.92
D	<u>9.04</u>
TOTAL	100

CHAPTER II

RELATED STUDIES

A number of investigations to determine achievement of candidates on Social Studies examinations set by the Alberta Department of Education have already been carried out. Although no study has been confined to the determination of the pass standard set by a specific group of B students, certain general conclusions were reached by these studies. These conclusions will be found useful in checking the findings of this more restricted, but more detailed, investigation.

Mr. Edwardh's general conclusions which relate to achievement in Social Studies 3, were , in part, as follows:

- (1) The knowledge of Canadian history was very inadequate.
- (2) The knowledge of the three groups (B, C, D) appeared to be vague and unrelated.
- (3) All groups did better than average on the essay question.
- (4) Questions such as "multiple choice" and

matching ones, in which the student did not have to write his ideas, achieved a higher attainment, not only this, but they encouraged guessing.

- (5) The students appeared to have a superficial knowledge of events. Although in many cases they had memorized certain facts, they seemed unaware of the casual nature of events¹.

Mr. Edwardh' study gives no detailed analysis of errors, and these general conclusions are based on the percentage of correct responses.

Mr. Watkins² study is related directly to achievement in Grade IX Social Studies. His general conclusions regarding student mastery of the course content follow:

"The standard of achievement is highest on problems ---- which have a very definite correlation with Science, Health, or Junior Business".

1. Edwardh, M.O. - A Quantitative and Qualitative Analysis of the Answers to the 1944 Social Studies 3 Examination Paper, University of Alberta(1948. p. 102
2. Watkin. J.F. Achievement in Grade IX Social Studies, University of Alberta (1941) p. 118.

"Problems dealing with current history rank second in achievement".

"The problem constituting a review of the world economic and geographic factors ranks third."

"Poorest achievement is found on purely "historical" material. This part covers Canadian and British history, and consequently it is of primary importance".

The following quantitative scores on the objectives of the course of studies in use in Alberta schools in 1941 ~~were~~ given by Mr. Watkin³. The questions were assigned to a given objective if the material tested, was in large part related to the general area with which the objective is concerned.

An analysis of six hundred answer papers drawn from the whole range of marks gave the following percentage of marks attained.

3. Ibid p. 65

TABLE II

PERCENTAGE SCORES ON COURSE OBJECTIVES ACHIEVED BY
GRADE IX STUDENTS IN SOCIAL STUDIES 1941 (according
to Watkin)

<u>Objective</u>	<u>Percent Score</u>	<u>Rank</u>	
1	38.3	4	
2	31.6	5	
3	44.0	3	
4	58.3	1	
5	-	8	
6	45.0	2	
7	23.5	7	
8	31.6	6	

The objectives of the 1941 course are as follows:

- (1) To facilitate an understanding of our social and economic realities; in other words to acquaint the students with enough historical and geographical facts to enable them to comprehend at their level our present-day economic and political institutions and practices. (ranked fourth, score 38.3%)

- (2) To develop the ability to see both sides of the question, and to think independently on the basis of facts. (Ranked fifth; score 31.6%)
- (3) To induce an attitude of fair-mindedness, and a desire to co-operate with others in the welfare of the community. (ranked third score 44.0%)
- (4) To train students in the use of efficient methods for securing and organizing information that is available in reference books, atlases and charts; and to extend their use of such tools as pictures, diagrams, maps, graphs and statistical data. (Ranked first; score 58.3%)
- (5) To develop an appreciation of Canadian culture. (Ranked last; not tested)
- (6) To make clear to students the effect of mechanization on the production of goods and services, and on developments in transportation and communication. (Ranked

second; score 45.0%)

- (7) To help students understand the contributions of explorers, frontiersmen and statesmen to the growth and development of Canada and the British Commonwealth; and to understand the contribution made by Canada to the trade of the Commonwealth and the World. (Ranked seventh; score 23.5%)

- (8) To foster an attitude of tolerance and respect for world peoples, and a sympathetic understanding of their social and economic problems. (Ranked sixth; score 31.6%)

Mr. Watkin comments on these general results⁴:

"Best results are being achieved on the objectives ... involving the teaching of ;..... factual material."

"Independent thinking, or reasoning ability ranks second"

"Poorest results are found on the objectives relating specifically to Canada".

4. Ibid P. 66

The achievement of the group on the problems of the 1941 course is given as follows. The same limitations as to grouping of questions under specific problems apply here as they do to grouping under general objectives⁵

TABLE III

PERCENTAGE SCORES ON THE PROBLEMS CONTAINED IN THE COURSE OF STUDIES FOR GRADE IX SOCIAL STUDIES 1941 (according to Watkin)

<u>Problem</u>	<u>Percentage Score</u>	<u>Title.</u>
4	47.0	How Science Affects Living
2	46.3	How Industrialization is Revolutionizing Home and Community Life.
3	45.1	How Modern Industrial Nations Produce and Distribute Goods.
6.	40.4	How Certain World Powers are Dealing with their Post-War Problems.
7	33.3	What About the Future?
1	28.9	How Environment Affects Living.
5.	23.3	How Britain and Canada have developed a System of Democratic Government.
Current Events	36.1	Current Events.

5. Ibid p. 67

Discussing the testing of objectives, Mr. Burke points out that the 1941 examination paper in Social Studies 3 over-stressed factual material⁶.

"That only one objective (the accumulation of factual material) is measured."

"That the paper does nothing to defeat the "crammer", but, rather, his activity is encouraged".

Mr. Baron's general conclusions regarding the quality of answers in Grade XII are as follows:⁷

"General knowledge of historical detail increases with proximity in time."

"Knowledge of Canadian History appears to be poor."

"Where the student is not required to write out his statements or ideas, greater success is achieved."

"Graph reading is "easy" provided that no recall of detail is necessary."

6. Burke, John: An Analysis of the Social Studies 3 Examination Paper of June 1940; University of Alberta (1941) p. 67.

7. Baron, Robert B.D.: Comparative Analysis of Grade XII Answer Papers in Social Studies of July 1944, University of Alberta (1946) p. 157.

"Knowledge appears to be general and vague rather than factual and specific".

"Most students seem to possess some ability in organization of ideas in essay form."

The current course of studies details the general objectives of the course as follows.⁸

- (1) To develop an understanding of social living in industrialized Canada.
- (2) To develop the ability for critical thinking about social problems.
- (3) To foster an appreciation of our Canadian heritage of free institutions and the democratic way of life.
- (4) To inculcate ideals of conduct, attitudes and beliefs suited to a democracy with a Christian background.
- (5) To promote an understanding of other peoples, their problems and viewpoints.
- (6) To facilitate the growth of skill in using social studies material such as source books, maps, charts, etc.

8. Department of Education, Alberta: Social Studies in Grade Nine: King's Printer (1947) p. 5.

Current Events

- (1) To introduce to students outstanding persons in the news.
- (2) To extend knowledge of places around which current interest has focussed attention during the year.
- (3) (In bold-face type) To understand that a current event is frequently symptomatic of an underlying social problem not yet solved.
- (4) To learn to read the daily newspaper critically and with wider understanding.

CHAPTER III

HOW THE DATA WERE SECURED

Three hundred examination papers were selected. The minimum raw score for a B standing in Social Studies was 43. All papers written in June, 1948 which received a raw score of 43 were selected. Every third paper of raw score 44 was selected until a total of 300 papers was obtained. There were 235 papers with a raw score of 44. Table IV shows the distribution of raw scores in the selected sample.

TABLE IV

DISTRIBUTION OF RAW SCORES FOR THE SELECTED SAMPLE
OF 300 PAPERS

Raw Score	N
43	223
44	<u>77</u>
TOTAL	300

Each question was tabulated to find out what the responses of the group had been. The totals were obtained by actual count. Where errors could be used to assess the candidates' knowledge of subject matter all responses were recorded. Where the items were not

objective the examiner's mark was recorded. For question one the errors were not itemized. A complete tabulation of responses is given in Appendix I. The scheme of tabulation is summarized in Table V.

TABLE V

TYPE OF DATA SECURED ON EACH QUESTION CONTAINED IN
THE SOCIAL STUDIES EXAMINATION FOR 1948

<u>Question</u>	<u>Items</u>	<u>Data Secured</u>
2	16	all responses tabulated
3	18	all responses tabulated
4	12	all responses tabulated
6	25	all responses tabulated
8	13	all responses tabulated
9	5	all responses tabulated
10	20	all responses tabulated
5	4	examiner's mark recorded
7	8	examiner's mark recorded
11	3	examiner's mark recorded
1	28	number correct, number wrong
TOTAL	152	

On question 1, 28 blanks are provided, of which the candidate is asked to fill in 20. Many candidates ignored this direction, and attempted to fill in all blanks. The same condition holds true of question 10, where 20 blanks are provided, but only 14 are to be filled. The examiner gave credit for the first 20 responses in question 1, and for the first 14 responses in question 10. For the purposes of this study a correct response was credited wherever it was given by the candidate. Where mechanical errors were made by the markers, these were ignored. The candidate was credited with the response actually made, and no attempt was made to determine what the raw score for any given paper should have been if no mechanical marking errors had occurred.

In every case, except in questions 1 and 10, the possible aggregate is taken as 300 correct responses, per item.

In question 1, 120 candidates answered more than the required 20 items. It was assumed that these candidates attempted 28 items. Therefore, the possible aggregate for question 1 was taken to be

(120 x 28) plus (180 x 20) equals 6,960 responses. Similarly in question 10 the possible aggregate was taken to be (124 x 20) plus (176 x 14) equals 4,944 responses.

In order to give credit for partial accuracy, a schedule of reasonable responses was drawn up for certain items in questions 4 and 6(b). A reasonable response is one which is not absurd or contradictory. Those responses which were clearly absurd or contradictory were termed guesswork.

The following excerpt from the examination will serve to explain the meaning of the letters given in Table VI, below. The map in question 4 is a polar projection with 24 meridians labelled from A to X.

A	90°E	I	30°W	Q	150°W
B	75°E	J	45°W	R	165°W
C	60°E	K	60°W	S	180°W
D	45°E	L	75°W	T	165°E
E	30°E	M	90°W	U	150°E
F	15°E	N	105° W	V	135°E
G	0°	O	120° W	W	120°E
H	15°W	P	135° W	X	105°E

The map in question 6(b) is a Mercator's projection with areas labelled from A to V. The letters correspond to the areas, countries or places listed below:

A Great Britain	L South Africa
B Italy	M Nigeria
C Baku	N Brazilian highland
D Siberia	O Argentina
E Japan	P Valparaiso
F. Mt. Everest	Q Amazon Valley
G. Central Australia	R Honduras
H New South Wales	S Louisiana
I Pakistan	T Prince Rupert
J Tanganyika	U Montreal
K Madagascar	V Great Bear Lake

The following table gives the responses for specific items which were given additional credit on the basis that the facts used by the candidate were partially correct.

TABLE VI

ACCEPTABLE RESPONSES CREDITED FOR GEOGRAPHICAL
FACTUAL ITEMS

<u>Question</u>	<u>Item</u>	<u>Subject</u>	<u>Response</u>
4	1	0° longitude	F H R S T
4	11-12	time zones	Reversed, mis- placed, but 180°
6(b)	1	mountainous area	B E I P (apart R)
	2	tropical jungle	J K M N R
	3	tundra	V
	3	Asia	C E F I
	4	gold	G M R J
	5	coffee	J
	7	sugar	N S R
	8	halibut	A T
	10	beef cattle	H L S
	11	palm oil	K R
	12	bananas	K M
	13	vanilla	M R
	15	desert area	C I L P D
	16	wool, wheat	I L O
	17	steel, textile, pottery	B E H
	18	oil	S
	19	silk, cotton textiles	A B L.

The itemized tabulation of additional creditable responses and the categories under which they are credited is given in Appendix V.

Reasonable responses are not used in computing the initial over-all achievement on factual items, but they are useful in indicating the extent of pure guesswork.

The examination paper was compared with the course outline to determine the extent of coverage of the material outlined and of the immediate problem objectives. The course of study is divided into seven major problems, and each of these is divided into sub-topics. Table VII shows the marks allotted to each sub-topic of the course.

TABLE VII

ANALYSIS OF THE COURSE COVERAGE EFFECTED BY THE 1948
EXAMINATION PAPER

Problem	Sub-Topic	Number of Items	Maximum mark allotted
1	I(a)	5	5
1	I(b)	4	2
1	I(d)	15	7-5
1	I(a)(e)	10	5

TABLE VII (continued)

Problem	Sub-Topic	Number of Items	Maximum mark allotted
1	II(a)	8	4
1	I(a)	12	6
II	(b)	7	3;5
II	(c)	5	2.5
II	(c)	4	2
III	(a)	12	6
III	(d)	3	1.5
IV	(a)	4	2
IV	(b)	3	1.5
IV	(c)	4	2
IV	(d)	1	.5
V	(a)	1	16
V	(b)	1	16
V	(d)	1	16
VI	(a)	1	10
VI	(b)2	1	10
VI	(b)3	1	10
VI	c	1	10
VII	b	4	8
VII	b	2	1

TABLE VII (continued)

Problem	Sub-Topic	Number of Items	Maximum mark allotted
General	-	13	8
General	-	5	5
General	-	20	7

Any 1 of 3 items on problem V to be answered.

Any 1 of 4 items on problem VI to be answered.

In no case was the coverage of any sub-topic complete. Table VIII gives a summary of the coverage which was effected.

TABLE VIII

EXTENT OF THE COURSE COVERAGE EFFECTED BY THE
1948 EXAMINATION PAPER

<u>General Topic</u>	<u>Extent of Coverage</u>
Causes of Climate	Seasons
Natural barriers	Scanty
Natural resources	Representative sample
Geographic factors and living	Definitions
Social factors and living	Definitions
Orientation on a polar projection	Map-location
Social effects of scientific industry	Partial - no labor unions
Economic effects of science - food	Partial - no modern farms
Economic effects of science - textiles	Partial - no modern textiles
Distribution and communication	Full biographical coverage
Modern trade relations	Definition of terms
Rise of parliament in Britain	Chronology - no content
Government of modern British Empire	Chronology - no content
Physical aspects of family life	Labor saving in the home
Dominion Status	map-location

TABLE VIII (continued)

<u>General Topic</u>	<u>Extent of Coverage</u>
The family as a social unit.	Recreation for the family
Physical aspects of community life	Provincial health services
Need for education in society.	School only
Need for beauty in society	Community drama
Need for religious expression	Individual happiness through faith.
Global politics	Problems in world peace
Canada's position among the nations	Background only
Evaluation of news items	Relevancy of data
Basic method of class work	Group procedure
Familiarity with names in the news.	Recognition of photos.

Consolidating the data given in Table VII, the number of marks allotted to each of the seven major problems of the course of studies was determined. The results are given in Table IX. The discrepancy of 4 marks in the total arises from the fact that a choice

of items was offered in question 1.

TABLE IX

THE NUMBER OF MARKS ALLOTTED TO EACH PROBLEM
CONTAINED IN THE COURSE OF STUDIES FOR 1948

<u>Problem</u>	<u>Maximum Mark</u>
I	27.5
II	8
III	7.5
IV	6
V	16
VI	10
VII	9
General	<u>20</u>
TOTAL	104

TABLE X

THE NUMBER OF MARKS ALLOTTED TO EACH QUESTION ON
THE 1948 EXAMINATION PAPER

<u>Question</u>	<u>Marks</u>	<u>Comment</u>
1	10	20 of 28 items required
2	8	
3	7	14 of 18 items required
4	6	
5	10	1 of 4 items required
6(a)	5	
6(b)	15	
7	8	
8	8	8 of 13 items required
9	5	
10	7	14 of 20 items required
11	<u>16</u>	1 of 3 items required
TOTAL	100	

Percentage

-28-

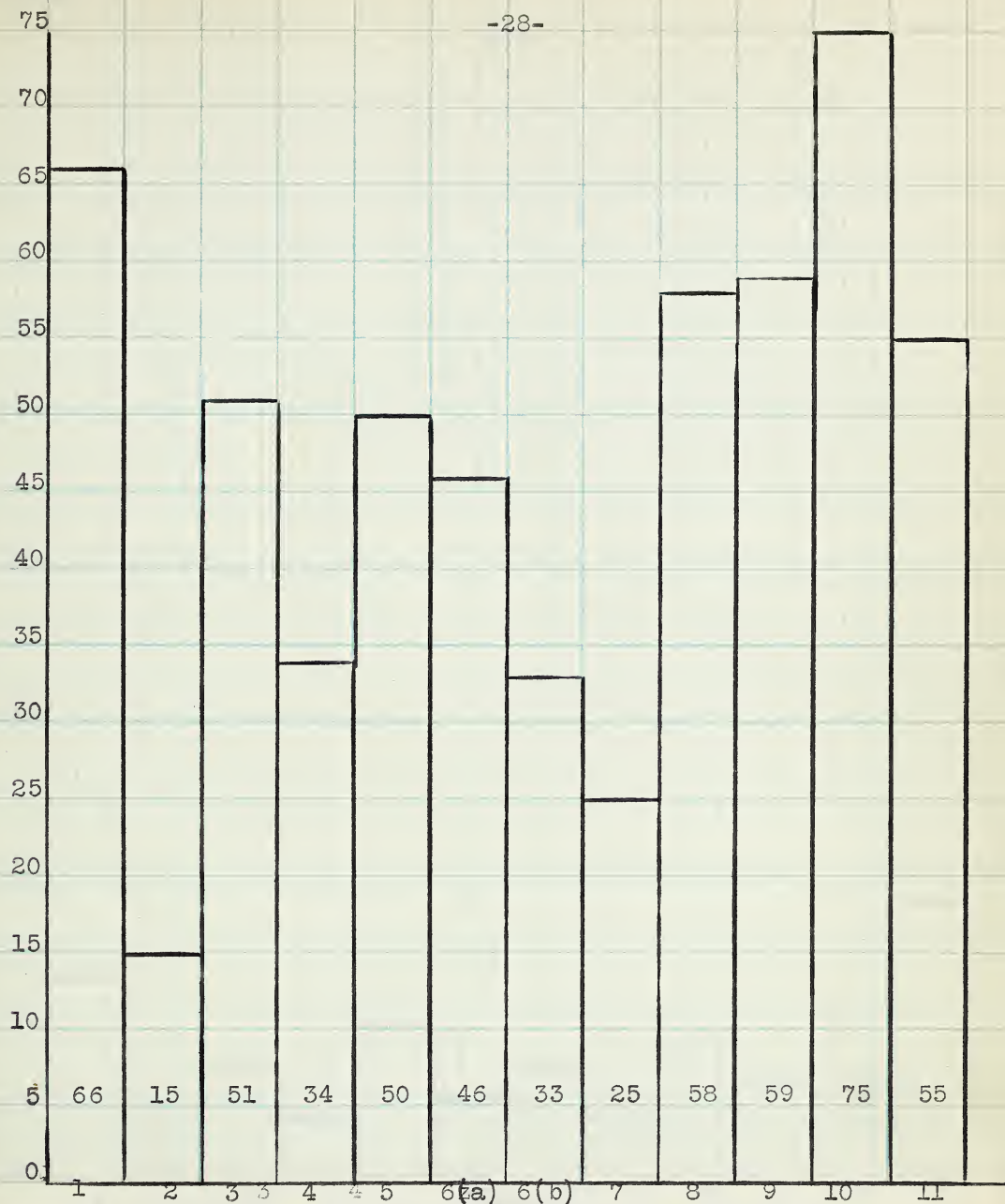


Fig. 1 Percentage of Possible Marks Achieved On Each Question, 1948.

20

15

10

5

0

1

2

3

4

5

6(a) 6(b)

7

8

9

10

11

Fig. 2 Average Mark Attained On Each Question, 1943.

Each of the 7 major problems in the course of study has a number of immediate objectives. The extent to which the examination paper tests these objectives even in part, is given in Table XI.¹

TABLE XI

EXTENT OF THE COVERAGE OF THE OBJECTIVES OF
INDIVIDUAL PROBLEMS EFFECTED BY THE 1948
EXAMINATION PAPER

<u>Problem</u>	<u>Coverage of Objectives</u>
I	3 of 4 tested in part
II	3 of 5 tested in part
III	2 of 4 tested in part
IV	2 of 4 tested in part
V	5 of 5 tested in part
VI	5 of 5 tested in part
VII	1 of 4 tested in part
Current Events	4 of 4 tested in part

From Table XI it appears that the sampling effected by the examination paper was wide, but none of the objectives listed for the individual problems contained in the course of studies is tested thoroughly enough to allow any definite statement to

to be made regarding the mastery of the material outlined under any one of the major problems.

No statement can be made concerning the measure of achievement on any of the objectives listed for the individual problems.

For example, problem II lists 40 areas of study, but only 7 of these are touched upon by the examination paper. These 7 areas are not tested in a detailed manner. Therefore, in Table XI the problem objectives are listed as being tested in part.

The adequacy of the prescribed minimum library as a source of factual material required to answer the items on the examination paper is indicated by Table XII.

TABLE XII

SOURCES OF FACTUAL MATERIAL PROVIDED BY THE
PRESCRIBED MINIMUM LIBRARY FOR GRADE IX
SOCIAL STUDIES

<u>Question</u>	<u>Best Source</u>	<u>Coverage</u>
1	Searle	26 of 28 items
2	Paterson	14 of 16 items
3	Denton and Lord	Geographical terms
	Quinn and Hopke	Cultural - Social terms
4	Denton and Lord	Complete
5	Arnold and Banks	Complete
6(a)	Denton and Lord	Complete
6(b)	Morrison	18 of 20 items
7	McDougall and Paterson	4 of 8 items.
11	Arnold and Banks	2 of 3 items

From a total of 100 marks on the paper,
75 marks could be earned by a thorough preparation
of text book material. The remaining 25 marks were
allotted to material drawn from current events.

This material is too recent to be incorporated into text books. Table XIII shows how these marks were distributed.

TABLE XIII

DISTRIBUTION OF MARKS ALLOTTED TO NON-TEXTBOOK MATERIAL CONTAINED IN THE 1948 EXAMINATION PAPER

<u>Question</u>	<u>Subject</u>	<u>Marks</u>
7	U.N.E.S.C.O.	2
7	British American Union	2
8	Evaluation of News	7
9	Group Procedure	5
10	Identification of Photos	7
6(b)	Location of Pakistan	.5
6(b)	Location of Baku	.5
2	Burma's status	.5
2	Ceylon's status	<u>.5</u>
TOTAL		25

The basic minimum library is listed as follows in the Course of Studies¹

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1. Course of Studies 1947 page 4.

TABLE XIV

THE BASIC MINIMUM LIBRARY PRESCRIBED FOR GRADE IX
SOCIAL STUDIES

<u>Authors</u>	<u>Title</u>
Arnold and Banks	Building our Life Together
Morrison	Economic and Commercial Geography
Quinn and Repke	Living in the Social World
Searle 8	Makers of the Modern World
Wallace	A reader in Canadian Civics
Paterson	Story of Britain and Canada
McDougall and Paterson	The World of Today
Denton and Lord	World Geography for Canadian Schools

It should be noted that one topic listed for the essay in question eleven is covered by the special bulletin "On The Alberta Health Horizon" issued by the provincial Department of Health. This bulletin is probably available in a majority of Alberta classrooms.

The factual material required by question four is fully covered in Denton and Lord's geography.

The type of map used, the polar projection, is specifically prescribed for problem VII of the course, while the great circle concept involving shortest air-routes over the poles is central to the whole problem outlined under part VII. It is entirely probable that the few gaps in text book coverage were filled in by specialized drills on these points.

Notes on Chapter III -

1. Department of Education, Alberta. Social Studies in Grade Nine; King's Printer (1947) P.P. 7-26.

CHAPTER IV

THE ORGANIZATION OF THE DATA

The objective items on the examination paper are grouped under four main headings:

(a) Factual material which could be answered by memory, and which could have been acquired by drill and summarization of text-book material. (b) Items testing the understanding of specific technical terms. (c) Items testing the application of generalizations to a given problem. (d) Current events which could not have been prepared for by drills.

There is considerable overlapping in this classification because of the wording of the items. For example, item nine of question 6(b) asks the candidate to locate, on the map provided, a port famous for nitrates. This item can be answered from memory as a fact in commercial geography. It belongs therefore, under classification, (a) The technical term, port, limits the range of possible answers, and, therefore, the item appears under classification (b). The nature of the product,

nitrites, demands that it be located in a dry area. For this reason the item is included under classification (c). It cannot be determined from evidence on any individual paper whether or not the student considered the qualifying force of the technical term, and the generalization, in answering correctly. This study will assume that the student, when answering correctly, understood the significance of all the words contained in the item.

The items relating to factual material are further subdivided into historical and geographical items. The historical items are defined for the purpose of this study as those items which require a knowledge of past events, at least on the level of recognition and recall. These events are such that they would not likely be found in the reading of daily press or current periodicals. Historical items are grouped in the analysis as biographical, political, chronological and miscellaneous items. Biographical items are those in which any person's name is mentioned. If the item

involves time sense, the item is classed as chronological. Items concerned with political institutions or international relations are grouped as political-historical items. A miscellaneous group serves to cover items not applicable to the other sub-classifications.

The geographical items are subdivided into four groups. Those items which ask the student to locate a country, city or area named in the item are grouped under place location(map). Items locating areas according to altitude, vegetation, etc. are grouped under physical geography. Items locating exports are grouped under commercial geography. Items dealing with climate, seasonal changes, and time zones are grouped under general geography.

The technical terms contained in the examination items are grouped into political, economic, scientific, geographical, and sociological classifications. Certain items in question three and question eight are included although they are not used in any answer. The assumption is made

that a candidate who left these items blank, or unused, did so because he knew the terms did not apply to the data given. Only those terms which qualified the choice of a correct answer were included. For example, in question two the first item reads, "The Statute of Westminster was signed". Statute is clearly a technical term, but taken by itself in this particular instance, its meaning does not assist in selecting the correct response. It was not included in the list for that reason. Item four of question two reads, "Women were given franchise in England". Since this item cannot be answered intelligently without understanding the term franchise, this item was included under the classification, technical terms, political.

The generalizations involved are not as clear cut as they should be for an accurate measurement of the group's achievement in applying generalizations to particular problems. Items dealing with standard time, seasonal changes and commercial geography were selected because they

are most clearly designed to test the application of generalizations.

The complete analysis of the objective items is given in Appendix IV. The following table shows the achievement of the group according to the proposed classification. Percentages show only correct responses. No adjustment has been made at this point for answers which are partially correct.

TABLE XV

THE MARKS OBTAINED BY THE GROUP ON EACH SUB-CLASSIFICATION OF OBJECTIVE ITEMS

No. of Gen. Items Class		Sub-Class	Correct Responses	Possible %		Over-all %
33	Historical	Biographical	4388	8460	51.8	43.5
16		Chronological	738	4800	15.4	Eliminating duplication of items
14		Political	548	4200	13.0	
5		Miscellaneous	886	1500	59.1	
44	Current Events		6573	12144	54.1	54.1
14	Geographical	Place Location	1549	4200	36.9	35.2
8		General	842	2400	35.1	Eliminating duplication of items
4		Physical	333	1200	27.8	
15		Commercial	1507	4500	33.5	
8	Technical terms	Political	748	2400	31.2	42.5
7		Economic	893	2100	42.5	
16		Geographic	1776	4800	37.0	
4		Scientific	502	1200	41.8	
14		Sociological	2330	4200	55.5	
26	Generalizations		2287	7800	29.3	29.3

The material offered by the essay questions is difficult to classify. There are two essay questions on this paper, each of which gives a choice to the candidate. The distribution of attempts and average scores is given in Table XVI.

TABLE XVI

THE MARKS OBTAINED BY THE GROUP IN EACH ESSAY
TOPIC

Question	Topic	Attempts	Average Score	Possible Score
5	1	220	5.01	10
5	2	17	4.59	10
5	3	23	4.48	10
5	4	37	5.51	10
11	1	209	9.3	16
11	2	59	7.9	16
11	3	30	8.1	16

Note: 3 candidates did not attempt question 5.
2 candidates did not attempt question 11.
Overall average 53.5%.

In order to get a clearer picture of the quality of the average essay written on this paper the following reading was done:

TABLE XVII

TYPICAL ESSAYS READ

Question	Topic	Number Read	Score
5	1	15	5
5	2	7	4 - 5
5	3	14	4 - 5
5	4	22	5 - 6
11	1	15	9 - 10
11	2	12	8
11	3	10	8 - 9

These essays were analyzed on the following basis:

- (1) Relevancy of facts introduced.
- (2) Awareness of present social problems.
- (3) Indication of formation of tentative solutions.
- (4) Significant omissions of pertinent detail.

The results of this analysis will be

considered in Chapter VII. The English was not marked on these essays with the exception that a maximum of ten marks were deducted for spelling errors. On the average 4.68 marks per paper were so deducted.

CHAPTER V

ACHIEVEMENT IN FACTUAL MATERIAL

From Table XV we find that on the basis of correct responses the achievement of the group was 43.5% in factual material drawn from history, 54.1% in factual material drawn from current events, and 35.2% in factual material drawn from geography. The average raw score on the 300 papers without deducting spelling errors was 47.9%

i - Biographical Facts

The percentage of correct responses on 33 items was 51.8%. Twenty-eight of the 33 items are concentrated into question 1. A full measure of the knowledge of the group cannot be given because only 20 items had to be answered. It is probable that relatively few additional correct responses would have been given if all candidates had attempted 28 items, because only 7 candidates made full marks on question 1.

The items in question 1 can be grouped into 3 areas of cultural activity. The invention of

machines was tested by 17 items. Scientific, but non-mechanical activity was tested by 6 items. Socially-centred activity was tested by 5 items. The following table shows the comparative scores, and the frequency of omissions:

TABLE XVIII

COMPARATIVE SCORES IN MAJOR CULTURAL FIELDS

Group	Average Correct	Average Not Attempted
A. Mechanical	172	78
B. Scientific	118	109
C. Social	104	121

The range of the items reinforces the superiority of the mechanical items.

TABLE XIX

RANGE OF SCORES OBTAINED ON INDIVIDUAL ITEMS
WITHIN THE MAJOR CULTURAL FIELDS

Upper Limit of Range	100	89	79	69	59	49	39	29	19	9
17 Items A	4	3	-	-	3	2	-	4	-	1
6 Items B	-	1	1	-	-	-	-	1	3	-
5 Items C	-	-	-	1	1	-	-	1	1	1

Five items from question 2 contain names of persons, but knowledge about the man is not essential to the correct placing of the event in historical time. The name could, however, be used by the critical student as additional evidence for determining the answer.

For these 5 items the correct response was given in 15.7% of the cases. The total of non-attempts for these items was 736 or 49.2% of the possible aggregate. The correct response for the whole of question 2 was 15.3%, while the correct response for the non-biographical items was 15.1%. The biographical clue did almost nothing towards raising achievement on chronological items.

ii - Chronological Facts

If question 2 is judged purely as a test of time sense, the achievement is extremely low. Correct responses averaged 15.3%. The examiner assumed that the time sequence in Canadian history was well known. The evidence of previous investigations into achievement in Social Studies in the province makes the assumption a rash one. The low

percentage of correct scores may indicate that the periods chosen were not well known. The classification of errors shows that except for very recent items the sense of depth in past time is not at all acute. This is brought out clearly in Table XX.

TABLE XX

COMPARISON OF ACHIEVEMENT ON RECENT AND NON-RECENT ITEMS

Time Period	Items	Correct	Wrong	No Attempt
7	4	65.5	92.7	141.7
1- 6 inc.	12	39;7	123.2	137.1

For the recent items 38.4% of the wrong responses were one period removed, that is in period 6. For all other items 38.8% of the wrong answers were one period removed from the correct period, but in the case of 6 out of 12 items there were two periods which have to be accounted for, one before and one after the correct time period.

The general vagueness of the time sense is also shown by the fact that 15 of the 16 items

were placed in each of the seven possible time periods.

The distribution of errors does show some grasp of chronology for which the markers could not give credit. Nine items show a definite symmetry of responses about the correct period. The responses for item two will illustrate the extent of this symmetry which shows an idea of chronological time not precise enough to receive credit. The correct response is 2.

TABLE XXI

SYMMETRY OF RESPONSES ABOUT A CORRECT TIME PERIOD

Response	1	2	3	4	5	6	7
Number given	45	52	45	24	10	8	2

iii - Political Facts

It is possible that question two could have been considered by the candidate as an itemization of a series of political facts. Two of the items relating to Burma and Ceylon were recent enough to be studied on the current events program.

The remaining 14 items are studied in connection with political history. The achievement of the group was 13.0 per cent as compared with 15.3 per cent on question 2 as a whole. The lack of orientation is particularly significant in that 8 of the items are concerned with the progressive evolution of the British parliamentary system and of dominion status; The percentage achievement on these 8 items was 14.2%. It cannot be assumed that this figure represents an accurate measurement of the group's understanding of how self- government grew, but it does show that few candidates were able to use a systematic outline of political development as an aid to correct chronological arrangement of the items. For example, 87 candidates answered that women received the franchise before the B.N.A. Act was passed. This figure represents 53% of the attempts made on item 4. Again, 17% of the responses to item 16 showed Canada refusing to accept reciprocity from United States before the passing of the B.N.A. Act. The correct responses to item 16 totalled only 13% of the attempts on that item.

The examination did not provide any direct need for reproducing political historical facts. By inference from question two it would appear that the group as a whole has only a slight command of political facts when required to use them as a means for solving a specific problem.

Miscellaneous Facts

Question 9 deals with the conduct of a public meeting under rules of parliamentary procedure. The achievement of the group on these five items was well above the average for the whole paper (59.1% as compared to 47.9%). The most significant item was item 5 concerning the role of the chairman. The emphasis in Social Studies methodology is on group procedure of a democratic nature. Only 22% answered this item correctly, but 37% considered it the chairman's duty to lead the discussion. This suggests that the idea that the chairman plays a dominant role in group work is widespread.

iv - Current Events Material

An extract from Table XV shows the achievement on current events was as follows:

<u>Items</u>	<u>Correct</u>	<u>Percentage</u>
44	6573	54.1

This achievement was higher than that on any other group of factual items, and was above the achievement for the whole paper. The significance of the identification of photos is hard to establish. It appears to be an index familiarity with newspapers and magazines through an emphasis on eye-mindedness. The result shows that the habit of looking at the newspaper has been established. But no attempt was made to test what ideas had been formed about the reasons why these persons were worth knowing. When this superficial test is eliminated the achievement in current events is substantially reduced:

<u>Items</u>	<u>Correct Responses</u>	<u>Possible Total</u>	<u>%</u>
18	2245	5400	41.6

One item, number 20, in question 6(b) was devoted to current events (Location of Dominion of Pakistan) 161 correct responses were given, and an additional 55 responses placed Pakistan in the general area of India.

Question 7 dealt specifically with, current

problems in inter-national relations. The examiners were lenient, in that they accepted any relevant statement of fact, or any current opinion as an argument. The pattern of achievement scores throws some light on the attitudes of the group.

TABLE XXII

ORDER OF ACHIEVEMENT ON INTERNATIONAL PROBLEMS

That Britain and U.S. should <u>not</u> have permanent military union	40.7%
Complete disarmament is acceptable	37 %
Complete disarmament is <u>not</u> acceptable	31 %
An international police force to keep the peace should be established	23 %
U.N.E.S.C.O. can teach international co-operation successfully	21.3%
No international police force should be established.	19.3%
Britain and U.S. should combine in military union	19 %
U.N.E.S.C.O. can do little toward teaching international co-operation	9.7%

The over-all average for these items is 25.1%. These ~~was~~ no attempt made on 35.1% of the items. The above figures indicate a lack of clarity

in the pupil's mind about basic forces and issues in world relations. The word most commonly used to describe groups of persons acting for or against peace was simply "people". Russia was named specifically as an obstacle to realizing disarmament, as a potent objector to a permanent military union of Britain and America. Otherwise the language of the candidates was not specific; distinct areas, nations, pressure groups, and traditions in international relations were not named, much less discussed. The whole question was answered by what can be described only as a fumbling attempt.

Question 8 was designed to test the significance which the candidates attached to specific news items. On 13 items the correct responses totaled 55% of the possible aggregate. Five items were not relevant to any situation listed in column A of question 8, and should have been left blank. The group left these items blank in 49.5% of the cases. The following table shows the most frequent errors in association (30 and above) which

were made in question 8.

TABLE XXIII

ERRORS IN ASSOCIATION BETWEEN NEWS ITEMS AND
SOCIAL PROBLEMS

News Item	Social Problem	Cases	Comment
Palestine	War	162	Reasonable
Un-American activities probed	Leisure Time	87	Lack of appreciation of writing as a full-time job.
Coal Shortage in Western Canada	Conservation	71	Lack of factual knowledge.
Palestine	Freedom of religion	55	Reasonable
Un-American activities probed	Delinquency	43	Reasonable
Canon Turner's Injury	Delinquency	41	Guessing as to Facts
Snow in New York	Conservation	41	Confused as to Shortage
Foreign Ministers fail to agree	Racial hatred	38	Reasonable
Death rate from whooping cough	Medical service to outlying areas	36	Reasonable
Foreign Ministers fail to agree	War	33	Reasonable
Cost of living Index	Conservation	31	Confused as to Shortage
Snow in New York	Leisure time	30	Forced association of ideas.

Total of additional responses credited - 357

Two items in question 2 were concerned with the recent change in status of Ceylon and Burma. The results show that almost one-third of the candidates realized that self government has been broadened in the British Empire since 1939.

TABLE XXIV

DEGREE OF RECENCY ASSOCIATED WITH BROADENING OF
SELF-GOVERNMENT WITHIN THE BRITISH EMPIRE

Material	1939-48	1914-1918	N.A.
Burmese Independence	118	30	132
Ceylon's Dominion Status	72	48	145
TOTAL	190	78	277
PERCENTAGE	32	13	46

There were no significant errors prior to 1914. The high percentage of non-attempts reflects the lack of mastery of chronology shown by question two as a whole.

Geographic Facts

v Place Location

<u>No. of Items</u>	<u>Correct Response</u>	<u>Percentage</u>
14	1542	36.9

Items 9 and 10 of question 4 are unsuitable because the places named are not on the map provided. The pupil has to project both map and meridian to arrive at a correct solution. Adjusting for 12 items, and adding 103 correct responses for item 3, question 6(b), (testing for Asia), the percentage of correct responses is raised to 40.3. The best item was a Canadian item (Great Bear Lake). The poorest item concerned the International Date Line(abstraction). The difficulty experienced in question 4 should not have been increased by the use of the polar projection map, because this map is specified for use in problem VII of the course. Moreover, none of the basic texts uses such a projection. The areas shown makes Europe and Asia appear as an indeterminate mass. It would appear from the very small sampling which the examination effected that the

group was not accustomed to making clear spatial distinctions, and that the geographical aspects of present problems are not clearly in their minds.

vi - General Geography

The topics tested in general geography were standard time and climatic zones. Table XXV gives a summary of achievement on the 8 items involved.

TABLE XXV

ACHIEVEMENT ON OBJECTIVE ITEMS IN GENERAL GEOGRAPHY

Question	Items	Percentage	Topic
4	3	16.3%	Standard Time
6(a)	5	46.0%	Climatic zones

For question 6(a) the common errors were distributed as shown in Table XXVI.

TABLE XXVI

ERRORS IN GENERAL GEOGRAPHY (CLIMATE)

<u>Incorrect Response</u>	<u>Cases</u>	<u>Correct Response</u>
Sun directly overhead at Equator on June 21st.	139	131
Fewest hours of daylight on Dec. 21st at Tropic of Capricorn	107	174
Sun directly overhead at Tropic of Capricorn on March 21st	92	132
South-east trade winds at Equator on Sept. 21st.	76	145
Rainfall zone at Tropic of Capricorn on Sept. 21st.	104	113
Wind blowing away from heat Equator.	71	145

The errors listed in Table XXVI show confusion concerning the objective facts about seasonal changes in the southern hemisphere. There is a lack of clarity concerning the conditions necessary to produce prevailing winds and rainy seasons. Since only three alternatives were offered the average of correct responses on the bases of chance should be 100. The actual average for the 5 items was 139.

The common errors concerning time zones are given in Table XXVII and XXVIII. The responses

to items 11 and 12 of question 4 were combined to provide the data for Table XXVIII.

TABLE XXVII

ERRORS IN GENERAL GEOGRAPHY
(LOCATING 0° LONGITUDE)

<u>Response</u>	<u>Cases</u>	<u>Error</u>
A	18	Relating 0° to the first letter
X	24	Relating 0° to the last letter
L	15	Relating 0° to the mid-point
O	15	Confusing letter O and 0°
R	19	Approximately 180° removed.
F	10	Adjacent meridian in Europe

TABLE XXVIII

ERRORS IN GENERAL GEOGRAPHY
(LOCATING TIME ZONES)

<u>Error</u>	<u>Cases</u>
Both the same meridian	23
Adjacent meridians selected	23
Twelve zones apart, but misplaced	25
Reversed	25
Miscellaneous	94

vii - Physical Geography

From a small sample of 4 items a percentage of 27.8 was earned. From an analysis of the errors the following information appears:

TABLE XXIX

ANALYSIS OF ERRORS IN PHYSICAL GEOGRAPHY

<u>Question</u>	<u>Item</u>	<u>Correct</u>	<u>Reasonable</u>	<u>Attempts</u>
6b	1	13	56	213
6b	2	55	142	287
6b	3	146	1	268
6b	15	119	52	282

A reasonable answer on the basis of knowledge of physical geography is determined as follows:

TABLE XXX

ACCEPTABLE RESPONSES CREDITED IN PHYSICAL GEOGRAPHY

<u>Item</u>	<u>Acceptable Response</u>
1	A mountainous area
2	Tropical area with heavy rains
3	Sub-arctic area - low rainfall
15	Desert or semi-arid area

When credit is given for a reasonable answer, the percentage of admissible responses is 49.5% of the possible aggregate, and 56.6% of the attempts actually made. The group's grasp of detailed fact was not sufficient to allow the candidates to answer the items with the degree of precision (recognition of a labelled area) which the examination demanded.

viii - Commercial Geography

Fifteen items covering facts in commercial geography gave a percentage of 33.3% of correct responses.

TABLE XXXI

DISTRIBUTION OF RESPONSES IN COMMERCIAL GEOGRAPHY

Class	Items	Correct	Reasonable	Total	%	N.A. per item
Staples	8	667	241	908	38	26
Minerals	5	494	95	598	39	53
Manufactures	2	336	57	393	65	26

The balance of the responses are attributable to guesswork.

TABLE XXXII

EXTENT OF GUESSWORK IN COMMERCIAL GEOGRAPHY

Staples	guesswork per item	160
Minerals	guesswork per item	129
Manufactures	guesswork per item	77
<hr/> Total of admissible responses 42% of the possible aggregate.		

The examination items in this category required careful study to enable a correct response to be made. The distribution of staple raw materials was most thoroughly tested. The 8 items show an average of 160 guessed answers per item. This score indicates that a significant percentage of the candidates are answering from rote memory, and that they make no use of basic facts of commercial and industrial geography to assist them in determination of productive areas for specific products.

For example, the distribution of responses for item ten (an area producing great numbers of beef cattle) was as follows:

TABLE XXXIII
EXTENT OF GUESSWORK - BEEF CATTLE

<u>Response</u>	<u>Cases</u>	
A British Isles	14	Correct 73 (Item 0)
B Italy	5	Reasonable 96 (Items H L S)
C Trans Caucasian Russia	3	No Attempt 20
D Northern Siberia	5	Guesswork 111
E Japan	2	
F Himalaya range	0	<u>TOTAL 300</u>
G Central Australia	28	
H New South Wales	34	
I Pakistan	2	
J Headwaters of the Nile	1	
K Madagascar	0	
L South African Plateau	2	
M Nigeria	2	
N Brazilian Highlands	5	
O Argentine Pampas	73	
P Chile	8	
Q Amazon basin	6	
R Honduras	4	
S Mississippi delta	60	(Texas plains)
T Lower St. Lawrence	11	
U Northern B.C. Coast	9	
V Sub-arctic Cdn. Shield	6	
No Attempt	20	

Item 10 was selected for detailed analysis because ranching is a part of the Albertan environment and, therefore, to a certain degree familiar to the candidates. When an unfamiliar agricultural environment is selected for study, the amount of guessing increases. Items 11 and 12 deal with the location of areas producing palm oil and bananas. Combining the responses for the 2 items, it was found that 85 correct responses were given, 352 responses placed the areas within the tropical zone, and 178 responses placed the areas outside the tropics. Therefore less than one-quarter of the group which recognized palm oil and bananas as tropical products could locate them properly within the tropical zone. There appeared to be a general idea about the tropics as an area different from the temperate zones in temperature and rainfall, but there was strong evidence that the tropical zone is undifferentiated within its limits, according to the ideas of the candidates. Some evidence in support of this statement is given in the Table below:

TABLE XXXIV

DISTRIBUTION OF ERRORS - PALM OIL AND BANANAS
(WITHIN TROPICS)

<u>Response</u>	<u>Cases</u>	
G desert area	4	
L dry plateau	30	
N Brazilian plateau	40	
Q impenetrable jungle	36	
J plateau - Central Africa	<u>62</u>	
TOTAL	172	

Note: Not selected on basis of fact

TABLE XXXV

REASONABLE RESPONSES - PALM OIL AND BANANAS
(WITHIN TROPICS)

<u>Response</u>	<u>Cases</u>	
K Madagascar	50	
R Honduras (palm oil)	20	
M Nigeria (bananas)	<u>25</u>	
TOTAL	95	

(Reasonable answer in that they are hot, moist, fertile
and accessible areas.)

Consolidating these scores with the original data:

TABLE XXXVI

EXTENT OF CRITICAL RESPONSES - PALM OIL AND BANANAS

178	responses absurd on basis of climatic zone selected
172	responses guesswork within the tropical zone
180	responses were reasonable

ix - Summary of Achievement on Factual Material

When full credit is given for responses based on a partial accuracy in using factual material, the sub-classifications in factual material rank as follows:

TABLE XXXVII

SUMMARY OF ACHIEVEMENT ON FACTUAL MATERIAL

<u>Historical</u>	
Miscellaneous (5 items)	59.1%
Biographical (33 items)	51.8%
Chronological (16 items)	15.3%
Political (14 items)	13.0%

TABLE XXXVII (continued)

<u>Current Events</u>	
Photo recognition (20 items)	72.4%
Map location (1 item)	72.0%
Political development (2 items)	32.0%
International problems (8 items)	25.1%
Interpretation of news (13 items)	65.4%
<u>Geographical</u>	
Physical geography (4 items)	48.7%
General geography (7 items)	36.4%
Place location (12 items)	39.9%
Commercial geography (15 items)	42.0%

The inclusion of all answers that might have been given because of partial knowledge of facts means that these percentages show all that can be credited. The balance of the candidates did not answer, or had such a poor grasp of fact that they resorted to guessing.

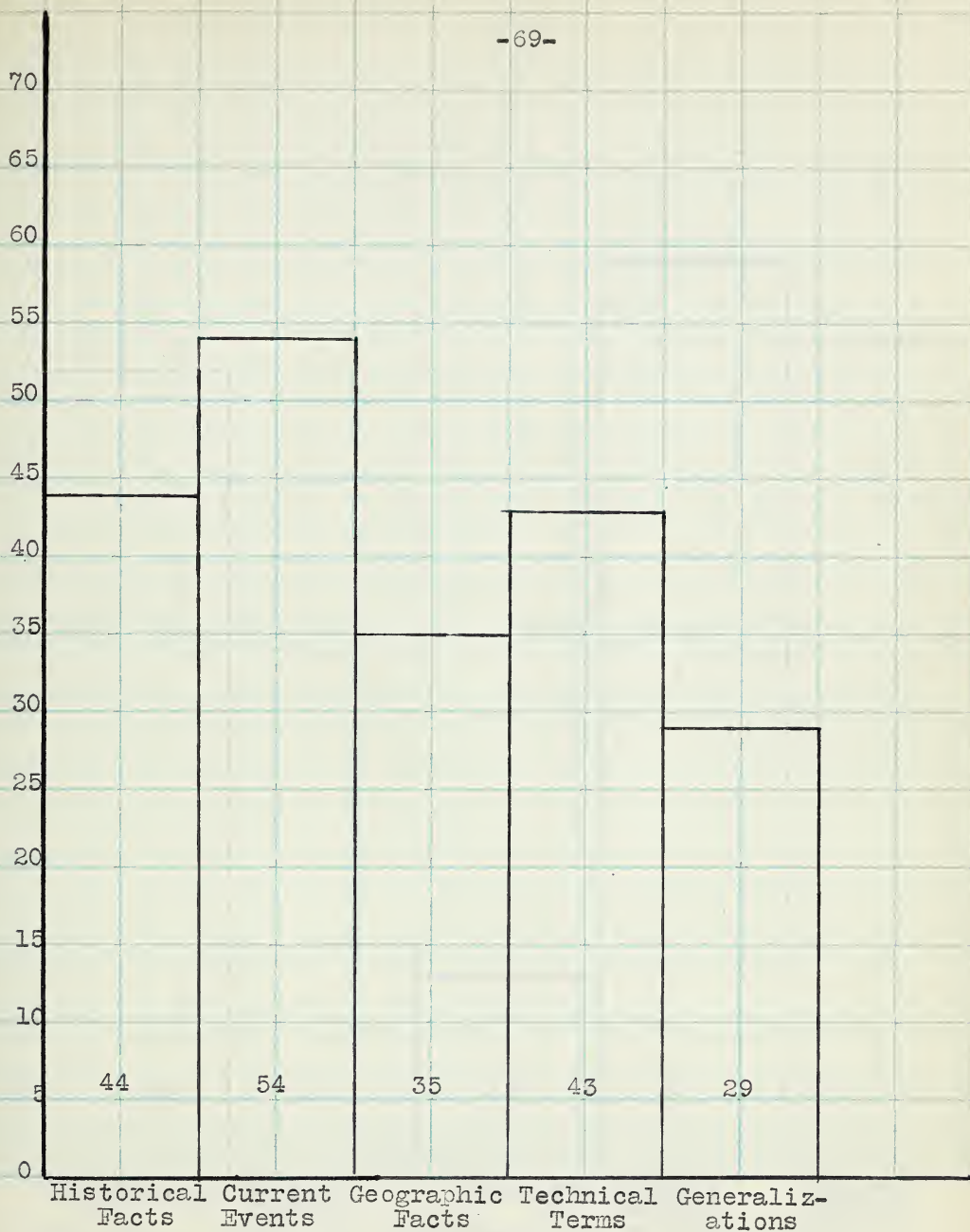
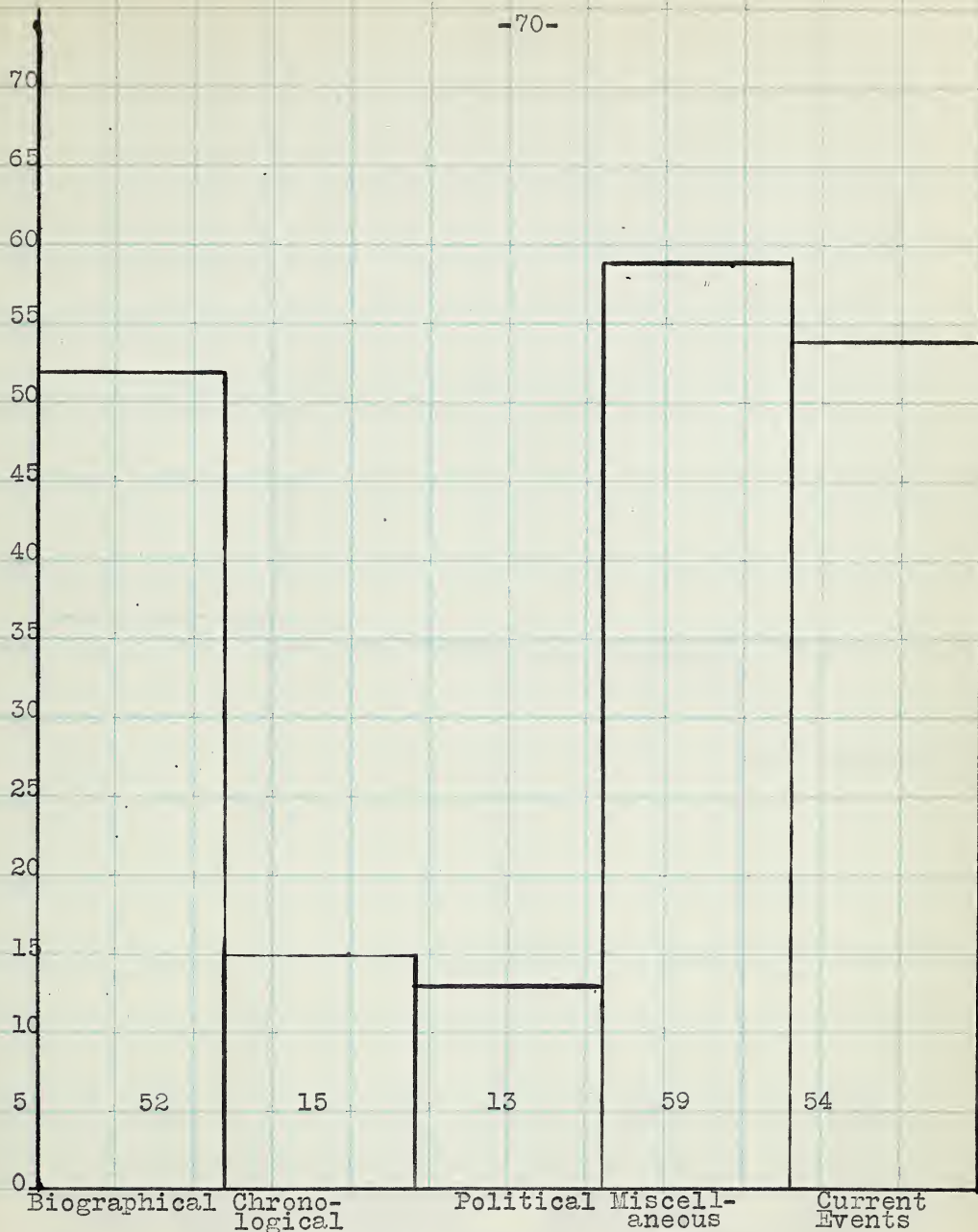


Fig. 3 Percentage of Correct Responses On Major Classifications .



Percentage of Correct Responses Given To Items in History

Fig. 4. and Current Events, 1948.

Percentage

-71-

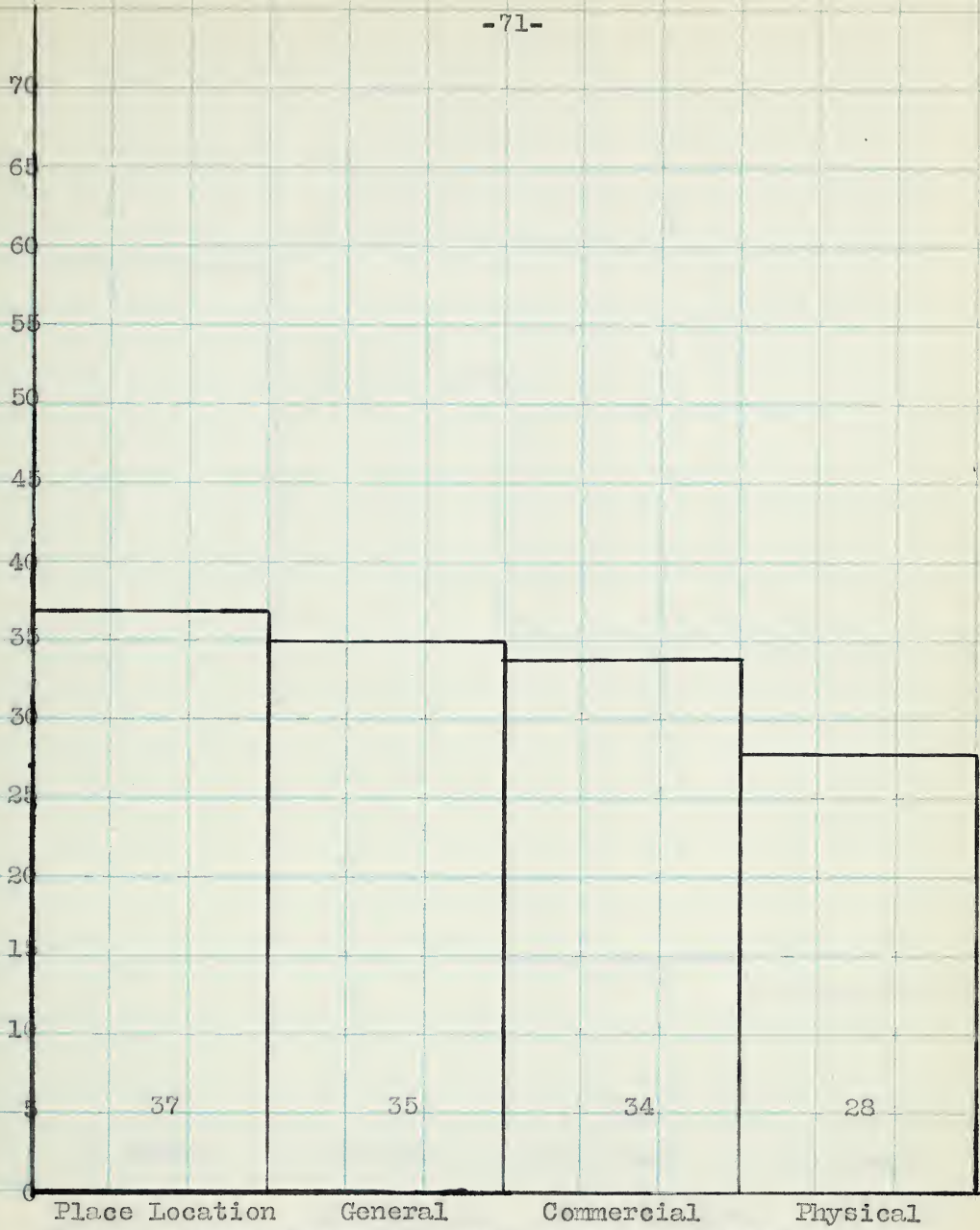


Fig. 5 Percentage of Correct Responses Given To Items in Geography, 1948.

Percentage

-72-

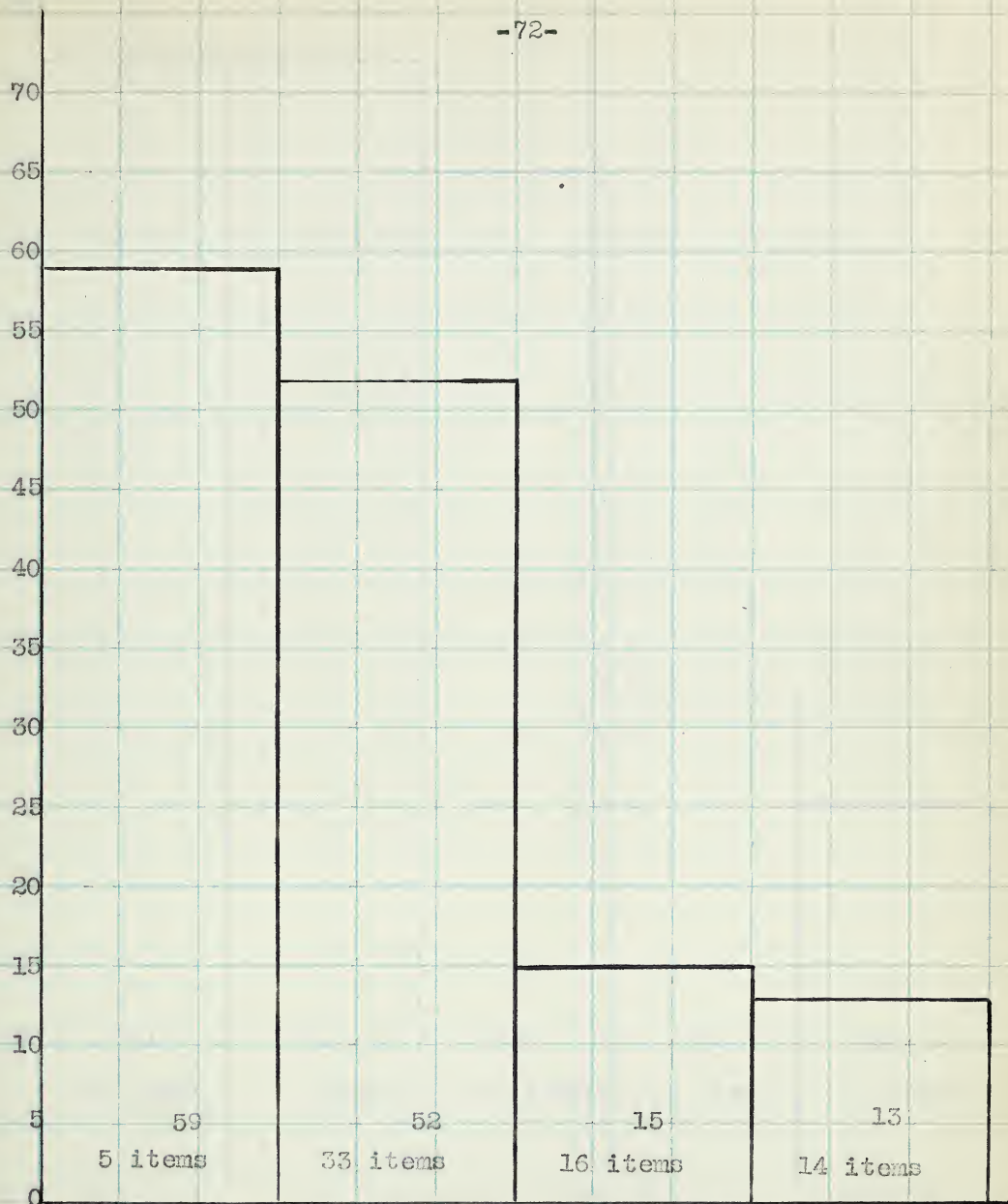


Fig. 6 Final Percentage Achievement On Historical Items
(Factual) , 1948.

Percentage

-73-

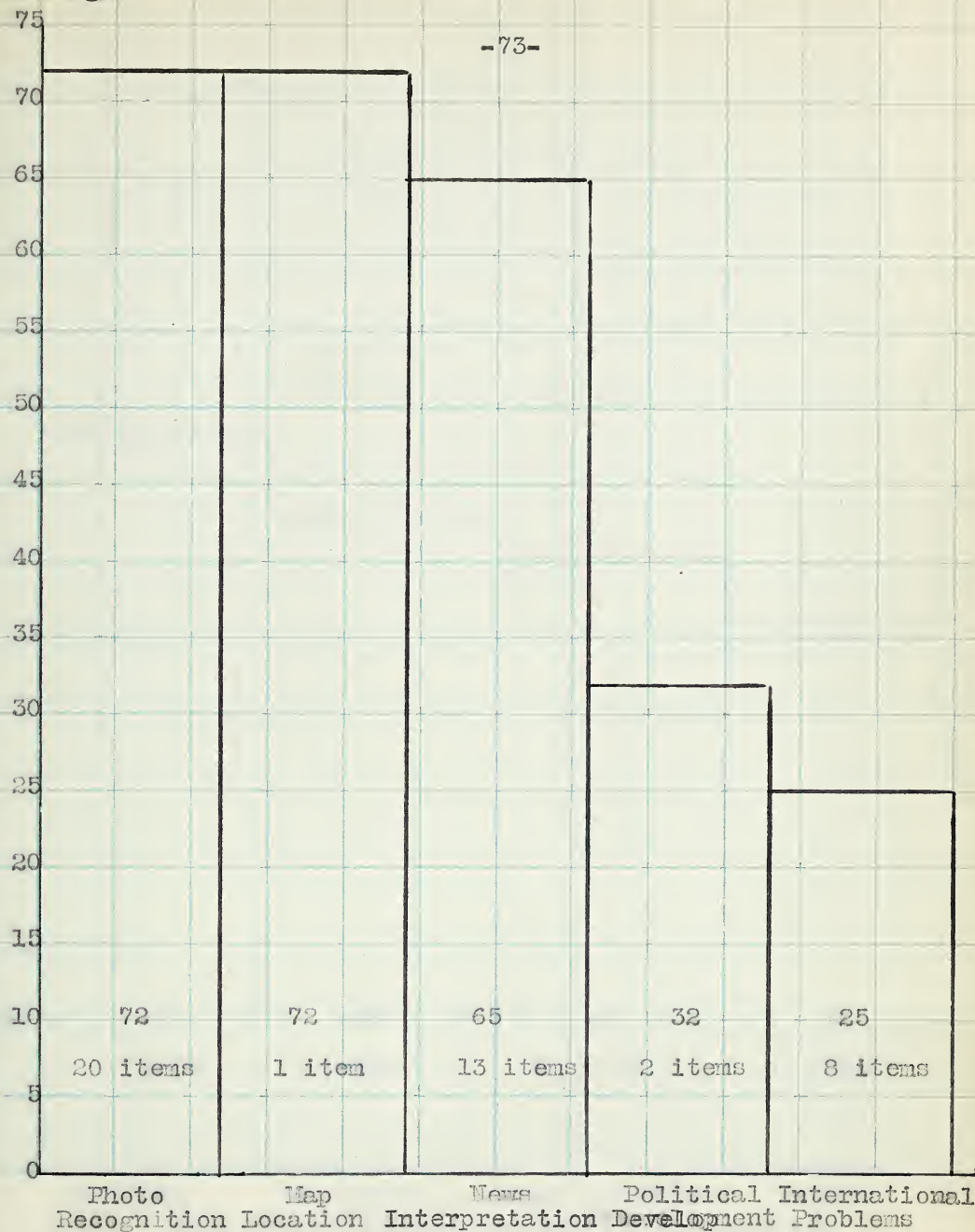


Fig. 7 Final Percentage Achievement On Current Events 1948.

Percentage

-74-

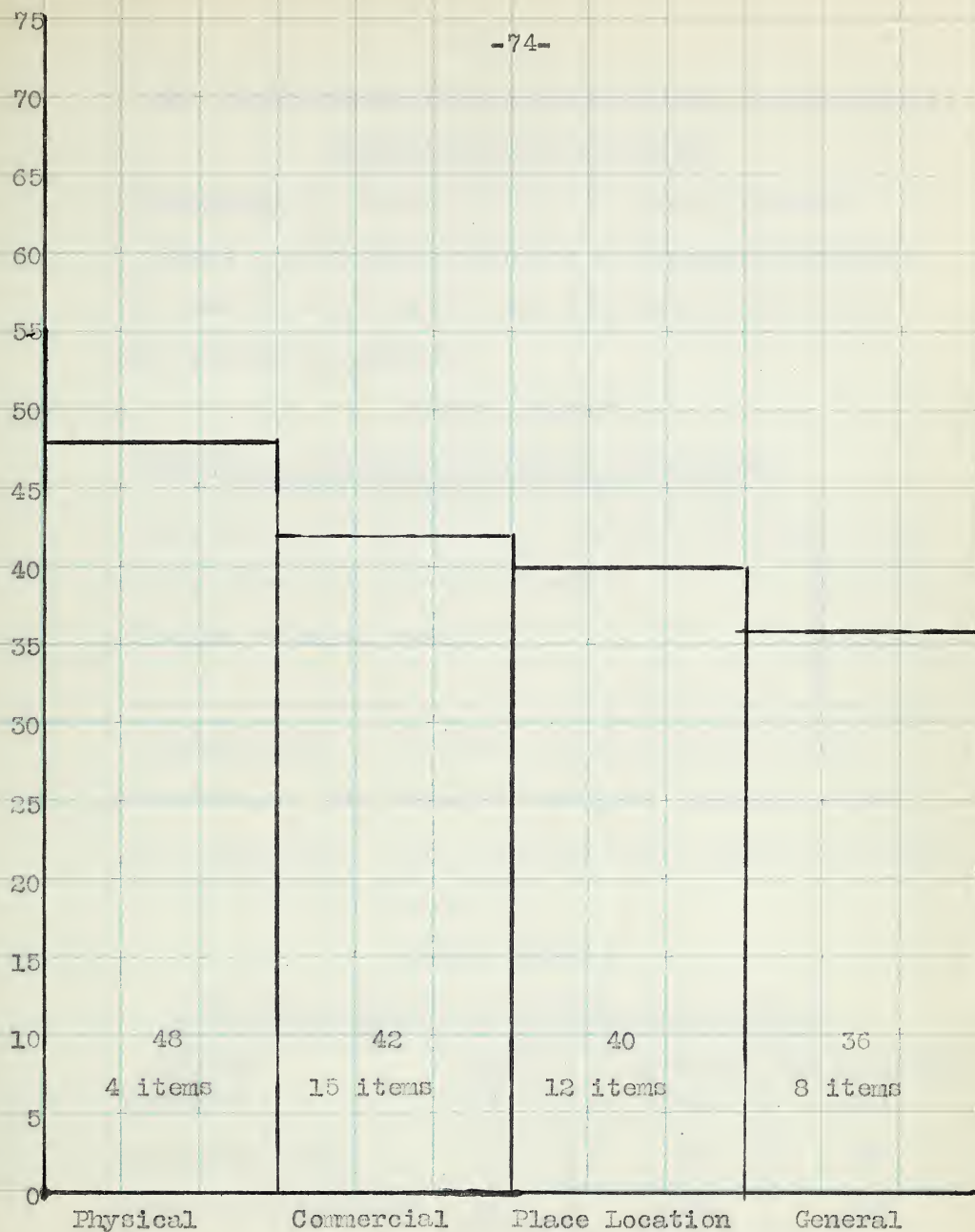


Fig 8 Final Percentage Achievement On Geographical
Items (Factual) 1948.

* - Relation of factual Achievement to the General

Objectives of the Course

Objective I - Social living in industrialized

Canada :- The social aspects of industrialization in general are tested. The following table shows the extent of mastery:

TABLE XXXVIII

SUMMARY OF MASTERY OF GENERAL OBJECTIVE I

Selecting data relevant to current problems	65.4%
Contribution of social reformers	34.7%
Problem of world peace	25.1%

Objective II - Critical thinking about social Problems: - The skill of critical thinking is not well developed. The following table shows the extent of non-critical responses:-

TABLE XXXIX

SUMMARY OF MASTERY OF GENERAL OBJECTIVE II

<u>Subject</u>	<u>Items</u>	<u>Critical</u>	<u>Non-Critical</u>
Commerce	15	1890	2081
Time meridians	3	190	250
News interpretation	<u>13</u>	<u>2501</u>	<u>748</u>
TOTALS		4581	3079

Objective III Appreciation of Canadian heritage
of free democratic institutions:

This objective was very lightly tested. The chronological arrangement of items in question two throws some light on the group's grasp of the order of development of these institutions. Taking the responses of the group as a whole for the eight items concerned, only 14.2% of the responses placed these items in their proper time period.

When the individual papers were checked for the achievement on the 8 items dealing with democratic institutions, the following information appeared:

TABLE XL

SUMMARY OF INDIVIDUAL ACHIEVEMENT ON EIGHT ITEMS
CONCERNING THE DEVELOPMENT OF DEMOCRATIC INSTITUTIONS

<u>Items Correct</u>	<u>Candidates</u>
0	117
1	92
2	48
3	25
4	12
5	6
6	0
7	0
8	0

Thus only 18 of the 300 candidates could place correctly four or more of these items. The result of this check on individual achievement made it clear that most candidates had an inadequate grasp of the steps by which democratic institutions developed. Such development is clearly a part of our democratic heritage. The extent of the disorientation was emphasized by the glaring errors.

TABLE XLI

THE EXTENT OF DISORIENTATION SHOWN BY RESPONSES
TO QUESTION TWO

Parliament Act placed before 1867	82
Statute of Westminster before 1867	77
Women's franchise before 1840	43
Robert Walpole placed after 1914	20
Cromwell placed after 1914	13
William III placed after 1914	13
Great Reform Bill placed after 1914	11
Charles I placed after 1914	7

Objective IV - Ideals of conduct, attitude, beliefs suited to Canadian democracy - not tested.

Objective V - Understanding of other peoples - their problems and viewpoints.

Question 7 dealt with the problem of establishing peace. The candidates earned 25.1% of the possible marks on this question. 35.1% of the marks were not attempted. No specific foreign country was tested. The candidates mentioned Russia, but no other country, as a problem-maker for peaceful nations. Too little

was tested to enable any rating to be made on this Objective.

Objective VI - Use of maps, charts and source-books.

Map mastery, at the level of recognition of labelled areas was tested. An organized idea of the hemisphere, climatic zones, vegetation zones and wind belts was not shown by more than two-thirds of the candidates. No definite statement can be made as to what the group could find on a fully detailed map, but the inference was clear that a great majority would not know what to look for, nor where to concentrate their search. It was clear from question 2 that time charts have not been used enough to become functional in the candidates' thinking.

The fact that seventy-five out of a hundred marks on the paper could have been earned by a careful study of text book material means that the candidates could obtain a B standing by earning slightly under two-thirds of these marks. There appeared to be a premium on text-book study, memorization of bits and pieces of factual detail, and note-taking.

The strong emphasis on text-book material does not fit in well with the general objectives of the Social Studies Course.¹

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1. Department of Education, Alberta: Social Studies In Grade Nine; King's Printer(1947) page 3.

CHAPTER VI

ACHIEVEMENT ON TECHNICAL TERMS

The percentage of correct responses for 49 items containing technical terms was 42.5%. The items selected were those in which the technical term was vital to the selection of a correct response. A detailed list of the 49 items and their associated terms is given in Appendix IV.

From selected items in questions 4 and 6(b) a further study of terms can be made.

TABLE XLII

EXTENT OF ADMISSIBLE RESPONSES ON THE BASIS OF THE TECHNICAL TERMS

Item	Question	Admissible	Not Admissible	Term
9	4	91	138	eastern hemispheres
2	6(b)	246	41	tropical
2	6(b)	90	197	jungle
3	6(b)	147	121	tundra
7	6(b)	186	92	southern hemisphere
8	6(b)	283	10	port
9	6(b)	<u>136</u>	<u>92</u>	port
	TOTAL	1226	644	
	%	65.5	34.5	

Responses were classed as not admissible on the following bases:

- (1) Tropical: North of the Tropic of Cancer;
South of the Tropic of Capricorn
- (2) Jungle - As above - but restricted to wet
lowland areas.
- (3) Tundra - Restricted to arctic or sub-arctic
areas.
- (4) Port - Obviously inland
- (5) Southern North of the equator as marked on
Hemisphere - the map.
- (6) Eastern Restricted to meridians east of
Hemisphere - 0° (G) and west of 180° (S)

The fact that 34.5% of the responses were inadmissible shows that the candidates were not using these terms to limit the range of possible answers. Since these terms are simple and basic, the implication was that examination excitement prevented the pupil from examining the test item and their response critically, or that the habit of using terms precisely has not been established; There was an error in the map used in question 6(b),

when the correct response accepted for item seven was actually in the northern hemisphere (J). No doubt this error added to the general confusion.

Question 3 shows that about 50 candidates did not realize that a given term cannot have two separate and distinct definitions. The number of duplications appearing on the 300 papers was 62.

The results of questions 3, 4, and 6(b) cast doubt on the ability of the group to use critical thinking when faced with an examination problem.

Adding those responses from the selected items in Table XLII which were incorrect as to fact, but admissible on the basis of the understanding of technical terms involved, the percentage of achievement is raised to 46%.

<u>Correct Response</u>	<u>Admissible</u>	<u>Total</u>	<u>%</u>
6249	487	6736	46

The following table gives an idea of the extent of the errors made in technical terms:

TABLE XLIII

THE COMMON ERRORS MADE CONCERNING TECHNICAL TERMS
INCLUDED IN QUESTION 3

<u>Term</u>	<u>Definition for</u>	
Barometric pressure	Huntingdon's theory	141
Peninsula	Isthmus	132
Continental Climate	Isotherm	76
Continental Climate	Huntingdon's theory	59
Topography	Aesthetic expression	40
Cultural heritage	Aesthetic expression	33
Peninsula	Hinterland	30

The examination of errors on items containing technical terms which appeared in questions other than question 3 leads to the conclusion that many errors were made because of careless and incomplete reading of the item. The best evidence is given by a comparison of the errors made in question 6(b) on the items dealing with ports and exports as shown in the following table:

TABLE XLIV

COMPARISON OF ERRORS MADE IN RESPECT TO THE TERMS
"PORT" AND "EXPORT"

<u>Item</u>	<u>Term</u>	<u>Correct</u>	<u>Placed Inland</u>
8	Port	283	10
9	Port	136	92
17	Export	243	28
19	Export	244	33

The variation in correctness in dealing with ports suggests that the term was skipped over in the reading, while the close correspondence in dealing with exports suggests that the term was noted and considered when selecting the response.

Therefore the results of items containing technical terms can be considered as indicating comprehension of the meaning of the terms used only when the attention of the candidates is forcibly drawn to the term as was the case in question 3. The percentage of correct responses here was 55%. Because of reading errors ~~this~~ figure will be used as the indicated achievement of the group on comprehension

of technical terms. The balance of the items serve to indicate the uncritical thinking of the candidates as a group.

CHAPTER VII

THE ACHIEVEMENT ON GENERALIZATIONS

To arrive at a quantitative measurement of the achievement of the group on generalizations, 26 items containing clearly defined generalizations from geography were selected from questions four and six. The percentage of correct responses to these items was 29.3%. The generalizations involved are given in Appendix IV.

The extent to which the correct generalizations have been made is not fully shown by the percentage of correct responses. A study of the errors made on each item shows more clearly what generalizations have been made, and in some instances the error is such that it shows that no generalization has been made.

The following detailed analysis of the responses made to item one of question 4 will serve to illustrate how the data for Table XLVI were secured. From the table of generalizations in Appendix IV the following information can be secured; Generalization, short title and Item.

Generalization number 1 is as follows:
Zero degrees longitude is a base line, arbitrarily selected for convenience, from which to measure standard time, and geographical position east and west. Short title, "measurement". Question 4, item 1.

The following responses indicate that generalization number one was made, although the actual selection made was not always correct.

TABLE XLV

THE ADMISSIBLE RESPONSES TO GENERALIZATION #1

Response	Number	Generalization
G(correct)	70	Measurement is taken from a line arbitrarily selected for convenience.
A	18	Measurement begins at the meridian labelled A, the first letter.
X	24	Measurement begins at the meridian labelled X, the last letter.
L	15	Measurement is made from the mid-point in both directions.

Total admissible 127.

Table XXXVII gives the number of admissible responses for each of the 18 generalizations listed in the appendix. Table XXXVIII gives the responses classed as admissible under each generalization.

TABLE XLVI

PERCENTAGE OF ADMISSIBLE RESPONSES TO GENERALIZATIONS

General- ization	Admissible	Incorrect	None Made	Attempts	Possible total
1	127	97	76	224	300
2	80	140	80	220	300
3	279	223	98	502	600
4	179	278	143	457	600
5	451	440	9	891	900
6	132	160	8	292	300
7	113	178	9	291	300
8	49	164	87	213	300
9	246	41	13	287	300
10	90	197	13	287	300
11	147	121	32	268	300
12	498	339	63	837	900
13	536	767	197	1303	1500
14	419	102	79	521	600
15	317	247	36	564	600
16	418	152	30	570	600
17	154	128	18	282	300
18	56	172	72	278	300

TABLE XLVI (continued)

Total admissible responses	4291
Total possible responses	9300
Percentage of achievement on generalizations	45.1%
Percentage of achievement on actual attempts	52.1%

TABLE XLVII

RESPONSES ADMISSIBLE ON THE BASIS OF GENERALIZATIONS

<u>Generalization</u>	<u>Item</u>	<u>Responses classed admissible</u>
1	4(1)	G A X L
2	4(11, 12)	M-A; A-M; twelve zones apare, but misplaced
3	4(6)	D E F G H I neglecting word <u>first</u>
3	4(8)	R S T U V neglecting work <u>first</u>
4	4(9)	S to F inclusive measured clock- wise
4	6(b)9	all areas south of the equator
5	6(a)1	1
5	6(a)2	1
5	6(a)3	2
6	6(a)4	3
7	6(a)5	2
8	6(b)1	F P R C (high mountain ranges)
9	6(b)2	all areas between the tropics

TABLE XLVII (continued)

Generalization	Item	Responses classed admissible
10	6(b)2	Q R M K
11	6(b)3	D V
12	6(b)2	positive; Q R M K J N
12	6(b)3	negative; D V
12	6(b)15	negative; G C L P
13	6(b)5	N R K
13	6(b)7	J N M R neglecting southern hemisphere
13	6(b)11	M R N K
13	6(b)12	M R N K
13	6(b)13	M R N K
14	6(b)8	A B P T U
14	6(b)9	A B P T U
15	6(b)10	H L O S
15	6(b)16	H L O S
16	6(b)4	L V R G (M-gold coast)
16	6(b) 6	V
17	6(b)15	G C L P
18	6(b)9	P G

The map provided in question 6(b) was drawn on a very small scale. It was possible to take any of the indicating lines as being specific, or merely as pointing out a general area. For example, L could have been taken as South Africa in general, as the South African veldt, or as the Kalihari desert. P could have been taken as Chile, Valparaiso, or the Andes mountain chain. R could have been taken as the coastal plain of Honduras, as the intermediate temperate area, or as the mountainous area of Central America. The possibilities of various interpretations, all of which have been allowed, explains the apparent contradictions contained in Table XLVII. The map suffers from a lack of objectivity.

There is no evidence that the items which were not attempted were left blank because of shortage of time. Some students prefer not to make wild guesses. The generalizations listed above, if made, would be expected to lead the candidates to make an attempt rather than leave a blank.

The results of the investigation of achievement on generalizations are summarized below:

TABLE XLVIII

SUMMARY OF ACHIEVEMENT ON GENERALIZATIONS

1. Correct answers to 26 items	29.3%
2. Admissible responses to 18 generalizations	45.1%
3. Percentage of actual attempts admissible	52.1%

It is considered that the second measure, 45.1%, gives the most accurate indication of achievement on generalizations.

CHAPTER VIII

THE CONTENT OF THE ESSAYS

The first topic in Question 5 was "What the School Does For Modern Society". Fifteen essays were selected which had received the average mark of 5. Nine of the essays stressed what the school does for the individual, and only inferred what benefits the school confers on society. Only one essay showed that the writer was aware that the proper relationship of the school and society was a pressing present-day problem.

The following table shows the kinds of detail that were used in developing the topic.

TABLE XLIX

SUMMARY OF DETAILS SELECTED BY CANDIDATES IN
DEVELOPING TOPIC 1, QUESTION 5

The school provides job training	$\frac{f}{8}$
Schooling raises the standard of living	4
The School allows mixing of various groups	4
The School trains youth to co-operate	4
The School develops altruism	4
The School increases the enjoyment in living	4
The School allows participation in athletics	4
Schooling is the basis for advances in science	3
The School develops the child	3
The School combats delinquency	3
The School inculcates obedience	2
The School teaches understanding of society	2
The School teaches understanding of government	2
The School gives social training	2
Teaches society to profit by past experience	2

Various details were mentioned once. Training for citizenship, for leadership, and for international understanding were cited. Any three details were enough to earn five marks.

There were many differences in the overall quality of the essays. The following essay is the poorest one of the selected group from the standpoint of English usage and facility of expression. It is quoted to show the minimum achievement which was allowed to earn a B standing. The following is a verbatim transcript of the written work of candidate #4421:

"What the School does for Modern Saceity. The school in Canada, United States and forgein country's have been a great help to modern society.

By biuilding school it does not only learn people but also keeps youngsters and older children off streets and from turning juveniles. Schools also prepare childern for working jobs in later years such as lawyers, doctors, etc, and also severl other trades. The building of schools has been done for the children, to modernize them and learn them to carry on in social and public life. Schoels is one of the best societys ever found;"

(Mark given 6 less a penalty of one for extra paragraphing. Net 5).

This essay is admittedly below average in English, but the details used, and their development is typical of the essays as a whole.

The second topic in question 5 is "How Music Helps to Break Down Racial Prejudice". Seven essays were read. The marks assigned were 4 and 5. The essays as a group stressed that music is enjoyed by all, and that musical talent in production and composition has been displayed by individuals from every race and of every nationality. The end product of musical appreciation is often a higher regard for the way of life of people who are different from ourselves. The following table gives the frequency of details used in developing the topic.

TABLE L

SUMMARY OF DETAILS SELECTED BY CANDIDATES IN
DEVELOPING TOPIC 2, QUESTION 5

	<u>f</u>
Music is often written by foreigners	4
Foreigners show talent in playing instruments	4
All races and peoples enjoy music	4
Cosmopolitan audiences listen to music	2
Negro singers are able and popular	2
Musical appreciation induces general appreciation of others	2
Music is one road to fame	2

The following is a verbatim transcript of
the work done on this topic by candidate #4284;
(4 marks)

"Music is something that can be enjoyed by
every body no matter what color or race. People of
foreign countries may like music written by Canadian
writers and Canadian people may like their music.
Music which is passed from generation to generation
is liked as much as classical music written by
writers of the present time. Music written years

ago is still in use in some countries. These are mostly great symphonies written by prominent men. Men such as Schubert are still very prominent in the world of music, and will continue to be for some time. So through the world of music a lot of racial prejudice has been broken down".

(Mark assigned: 5)

Note that only one specific name has been identified, that of Schubert.

The third topic in Question 5 is "Why a Modern Community Should Provide Opportunities for Expression Through Drama". Fourteen essays were read which were assigned a mark of 5 or 4 by the examiners. One essay was completely off the subject. The development of latent talents was stressed along with the development of facility in the use of language and the development of self-confidence, in the individual. The emphasis was laid upon drama as a service that should be provided by the community for the individual member. The following table shows the details that were most frequently used by the candidates:

TABLE LI

SUMMARY OF DETAILS SELECTED BY CANDIDATES IN
DEVELOPING TOPIC 3, QUESTION 5

Gives self-confidence to individual	7
Improves expression in language	6
Develops latent talent of individuals	5
Allows expression of emotion	4
Serves to combat delinquency	4
Provides suitable use of leisure time	3
Provides a vehicle for adult education	3
Gives poise to the individual	3
Makes an attractive community	2
Drama is a kind of mental hygiene	2
Everyone has a chance to participate	2
Permits the raising of funds for community projects.	2

The following is a true copy of the written work of candidate #4215 on this topic. It was the poorest of the selected essays in this group. The examiner gave it 4 marks.

"In this modern world things are changing very fast, new inventions and new improvements in life. So if a community is to keep up with modern

opportunities it must have some way or other to do this. One way is to have dramas or plays to which people enjoy and take interest to; Communities before doing this must be well organized to take opportunity that arrises. These would the city home and the farm. Through drama country folks could gain knowledge how to raise better crops, newer ways of farming and better methods. To the city people drama would show opportunities in business jobs which may deal with local affairs as well as abroad."

The fourth topic in question 5 was "The Importance of Religious Faith in the Attainment of Individual Happiness". The result of the survey of 22 essays with the mark of 5 and 6 shows that the subject was given a varied treatment. Most candidates stressed the importance of going to Church, rather than the importance of religious faith. Twelve candidates did not discuss faith at all, but did discuss membership in a church-going group. The following table gives the frequency of use of relevant details:

TABLE LII

SUMMARY OF DETAILS SELECTED BY CANDIDATES IN
DEVELOPING TOPIC 4, QUESTION 5

	<u>f</u>
Religion induces honesty etc.	9
Religion is a community activity	9
Church attendance combats delinquency	6
Develops a feeling of altruism	6
Combats the tendency to violence and crime	6
Church attendance builds reputation	5
Churches foster camps and clubs	5
Churches formulate statements of morals	5
Church attendance leads to friendships	4
Church membership used as a reference	4
Church services are informational	3
Religious training must begin early	3
Churches teach good citizenship	3
Religious faith is an object of value	3
Faith holds out a final reward to the good	3

The table reflects two features of the essays.
The first is that religious faith was not emphasized.

The second feature is the wide variety of details mentioned. In order to give a clearer picture of the quality of the essays, 3 of them are given in full below.

Candidate #3076 (6 Marks)

"Religious faith is something that most individuals want, but can not obtain it. If it is obtained in the very early stage will play an important part of one's happiness. Some people have not yet had the slightest idea how religion may overcome their trans-gressions. When one decides to go through Christian Bible School, it is off faith which help him to go through this work. Also those having the habit of drinking, it may be overcome by attending church and believing in faith.

When one's life grows dim the importance of religious faith should be at hand to guide him were ever he believed in."

Candidate #5798 (5 Marks)

"All people are religious in there own way. They all belong to one religion. Some people would not be happy or have fun if they had to go by some one else's religion. People do not all think the

same of it. Some will not go to a movie and are happy by being that way while others would say you could not have fun if you didn't. It is the same with dancing and gambling in any way such as at the races of any kind. Some attend church every Sunday and give a share of their earnings while others go the odd time and give but are yet happy in their ways. No matter what you believe you can always get individual happiness."

Candidate #5281 (6 Marks)

"When we first go to church no matter what religion we learn who our Creator is and the rules he want us to obey in other words, ten commandments. (Do not steal - obey parents, protect neighbors property, do unto to other as you would have them do unto you." All rules in Church are very necessary. in life of a community. We have to believe the things that science has not solved by spiritual means. When we learn and obey all rules in church we will have no jails and reform schools. We will have less worries and be happier. We believe that the Lord love all races and sympathize our fellowmen.

Religion makes each individual happy, which in turn makes a happy nation".

The topics in question 11 were taken directly from problem 5. The great majority selected topic one (209). The first topic was "How modern conveniences are relieving women from much of the drudgery of housework." The candidates were directed to follow the plan given below:

Title

"Paragraph 1 should describe conditions as they were in the past. Paragraph 2 should show the situation as it is now, because men have tried to attack their social problems intelligently. Paragraph 3 should suggest the possibilities for further improvement in social living."

Fifteen essays with a mark of nine were read. The emphasis on mechanical labor-saving devices was overwhelming. The past was pictured as drab and much more backward than our parents would care to admit. Most of the candidates could see no limits to the possibility of improvements through science and invention. The reader is left with the

impression that these improvements are enjoyed by all housewives. The following table shows the frequency of relevant details.

TABLE LIII

SUMMARY OF DETAILS SELECTED BY CANDIDATES IN
DEVELOPING TOPIC 1, QUESTION 11

	<u>f</u>
Increased use of machines	15
Better lighting	10
Running water	10
Ready-made clothing	8
Refrigeration	8
Sewers and sanitation	4
Better floor coverings	3
Improvement in design of homes	2
All mechanical home forecast	3
Possibility of atomic energy units	3
No further improvement necessary	3

The essay written by candidate #5241 is quoted below. The essay is typical as far as development of the topic is concerned, but the English is below average to a small extent. (9 Marks)

"How Modern Conveniences are Relieving Women from much of the Drudgery of Housework".

"Living conditions in the past years were very bad for example. There were no electrical equipment (lights stoves etc) Light was obtained from a candle or lamp. Water was carried a great distance from a dirty well. The food was cooked over an open fire. There was no beds. The people slept on a pile of straw. Washing was done by hand.

Today we have electric lights, stoves refrigerators, irons, washing machines, vacuum cleaners, running water, air conditioning everything that could be wished for.

In the future years the housewife will have more and more things to help her in her household chores. Work which is work now will be play tomorrow if science keeps on inventing new and more helpful workers."

The second topic was "Recreation for the Whole Family". Twelve papers were read with marks of eight or nine assigned by the examiner. Only one paper suggested that modern forms of recreation were splitting up the family. The essays as a group laid

strong emphasis upon providing playgrounds and community centres where individuals could find the type of recreation that he enjoys most. The following table shows the details most frequently mentioned.

TABLE LIV

SUMMARY OF DETAILS SELECTED BY CANDIDATES IN
DEVELOPING TOPIC 2, QUESTION 11

	<u>f</u>
Lack of recreational centres in the past	5
Frequency of family visits in past	4
Isolation of the family in the past	4
Dances and picnics an old method	4
Need for community recreational centres	8
Emphasis on games and sports	6
Value of travel as recreation	6
Library and theatre	2
Young people's clubs	2
Possibilities of radio	3
Possibilities of television	2

Candidate #1352 received eight marks for the following essay, which is typical of the twelve

essays which were read.

"Recreation for the whole Family"

"Long ago the fathers and mothers had no time to play and fun with their children. The children had to play with their friends, and if they live far away from the people they have to play alone.

Now adays the parents don't have to work so hard so they can devote part of their time to recreation. Some of the kinds of recreation is: gulping and playing ball. They could go on hikes, or swimming. There are quite a few parks to take children around to. If the parents are busy the children usually have some kind of toys to amuse themselves with. One of the most pleasantest things a family could do is go on a sight seeing trip. You could go to the lake or beach or even to the country.

In the future the parents will be able to devote more time to recreation than they do now. There will be new parks being built so that the children and parents can see and enjoy."

The third topic in question 11 was "Health Services in Alberta". Ten essays were read. Again, in this group, past conditions were described as being very bad. The essays, as a group, emphasized the improvement in training of doctors and nurses, the advances made in scientific treatment, in providing equipment, and in developing preventive drugs. The emphasis for the future was on greater availability through mobile clinics and government hospitals in rural areas. The following table shows the frequency of relevant details:

TABLE LV

SUMMARY OF DETAILS SELECTED BY CANDIDATES IN
DEVELOPING TOPIC 3, QUESTION 11

	<u>f</u>
Improved training	6
More mobile clinics	6
More equipment available	5
Wider availability of hospitals	5
Improvements in preventive drugs	5
Government hospitals to be built	4
Gymnasiums and sanitoriums	3
Improved sanitation	2
Better vital statistics	1

The following essay received 9 marks.

This essay is more objective than the majority of those which were read.

Candidate #6431

"Health Services in Alberta"

"The health conditions of the past have been poor in Alberta due to the lack of doctors, medical equipment, and hospitals. The doctor in the community had to go around to the homes and inspect the health conditions.

At the present, people needing medical attention are taken into a modern hospital or sanitorium to be treated with up-to-date medical instruments and medicine used by a well educated doctor. Now, different doctors specialize on certain diseases, or an organ of the body. With the use of scientific inventions the diseases are prevented by vaccination which is one more advantage of our modern health system.

In the time to come, with the help of more scientific experiments and inventions, the health conditions in Alberta are promised to be much better

than they are now. If more vaccines are made and put into use it will greatly reduce and greatly improve health conditions."

The content of the essays which received average marks shows that the candidates have certain glaring deficiencies. Their command of English is not complete enough to allow them to express their ideas clearly and distinctly. The ideas themselves are not clear-cut. The language is non-specific and full of generalities. The past is looked upon as an **era** of almost primitive backwardness, while the present is accepted quite uncritically as an obvious improvement. The future holds the promise of unbounded progress based on scientific advancement. This lack of objectivity and critical mindedness shows that these candidates have not yet achieved any clear understanding of their cultural heritage or the world in which they live. Only two essays suggested that any serious problems remain to be solved, and none suggested that future society might not be able to solve them satisfactorily. The content of the essays suggests that only a bare beginning has been

made toward achieving the general objective of an understanding of social life in industrialized Canada and an appreciation of our Canadian heritage. The lack of precision in factual detail, coupled with an inability to express themselves clearly, would suggest that these candidates cannot yet do any critical thinking about social problems. It is clear from an examination of individual papers that certain candidates did in fact receive a B grading without showing evidence of critical thinking in answering the essay question. The essays quoted speak for themselves on this point.

The following table is a summary of the incidence of the principal deficiencies discussed in the previous paragraphs. The total number of essays checked for questions 5 and 8 was 95. By extension it may be inferred that the number of essays considered to be adequate is the reverse of the following tabulation.

TABLE LVI

SUMMARY OF THE EXTENT OF DEFICIENCY IN ESSAY
TREATMENT

<u>Deficiency</u>	<u>Cases</u>
1. Lack of ability to express thoughts in good English.	70
2. Ideas not clear cut.	63
3. Essays full of vague generalities and platitudes.	65
4. Distorted view of the past.	50
5. Lack of objectivity about the present.	56
6. Over-emphasis upon the mechanical aspect.	53
7. The lack of precision in factual detail.	45

CHAPTER IX

SUMMARY CONCLUSIONS AND IMPLICATIONS

Summary

The quantitative measures of achievement based on the responses to objective items are given in Table LVII. The final measures of achievement in factual material are obtained by averaging the percentages listed in Table XXXVII.

TABLE LVII

FINAL MEASURE OF ACHIEVEMENT EXPRESSED AS A
PERCENTAGE OF POSSIBLE ACHIEVEMENT

Historical fact	34.7%	
Current events	58.5%	
Geographical fact	42.4%	
Technical terms	55.0%	
Generalizations	45.1%	

The final score for technical terms was taken from the results of question 3, because the other items were not emphatically directed toward a consideration of the terms involved. That the reading of the candidates was faulty is objectively shown by the fact that 40% of them failed to follow

the limitation set in the directions to questions 1 and 10. Since it appeared impossible to disentangle reading oversights from misunderstanding of the terms involved, only question 3 was retained as an index of achievement on technical terms.

The positive measure of achievement in making correct generalizations was made up from subject matter in geography. Certain other evidence should be added to indicate the broad generalizations that the candidates made in other fields. It is clear from questions 1 and 11 that the importance of science, especially in the field of mechanical invention, is clearly grasped by the majority of candidates. There is little evidence to show that they have grasped the social implications of the scientific advances, except that we depend on modern transportation and communication for the smooth working of our industrialized society, Generalization concerning other people and our relations with them as far as question 7 indicates, has been too broad to allow any real objectivity. The same tendency toward over-simplification is

reflected in the responses dealing with the physical and commercial geography of the tropics and the southern hemisphere.

TABLE LVIII

SUMMARY OF CALCULATIONS FOR FIGURE 9

<u>Historical</u>	<u>Credited</u>	<u>Possible</u>	<u>Derived from</u>
Biographical	4150	6960	(28 items question 1)
Biographical	238	1500	5 items question 2
Chronological	738	4800	16 items question 2
Political	548	4200	14 items question 2
Miscellaneous	886	1500	5 items question 9
TOTAL	6560	18960	Percentage 35%
<u>Current Events</u>			
Photo recognition	3594	4944	20 items question 10
Place location	216	300	1 item question 6(b)
News interpretation	2501	3900	13 items question 8
International problems	603	2400	8 items question 7
Political development	190	600	2 items question 2
TOTAL	7104	12144	Percentage 59%

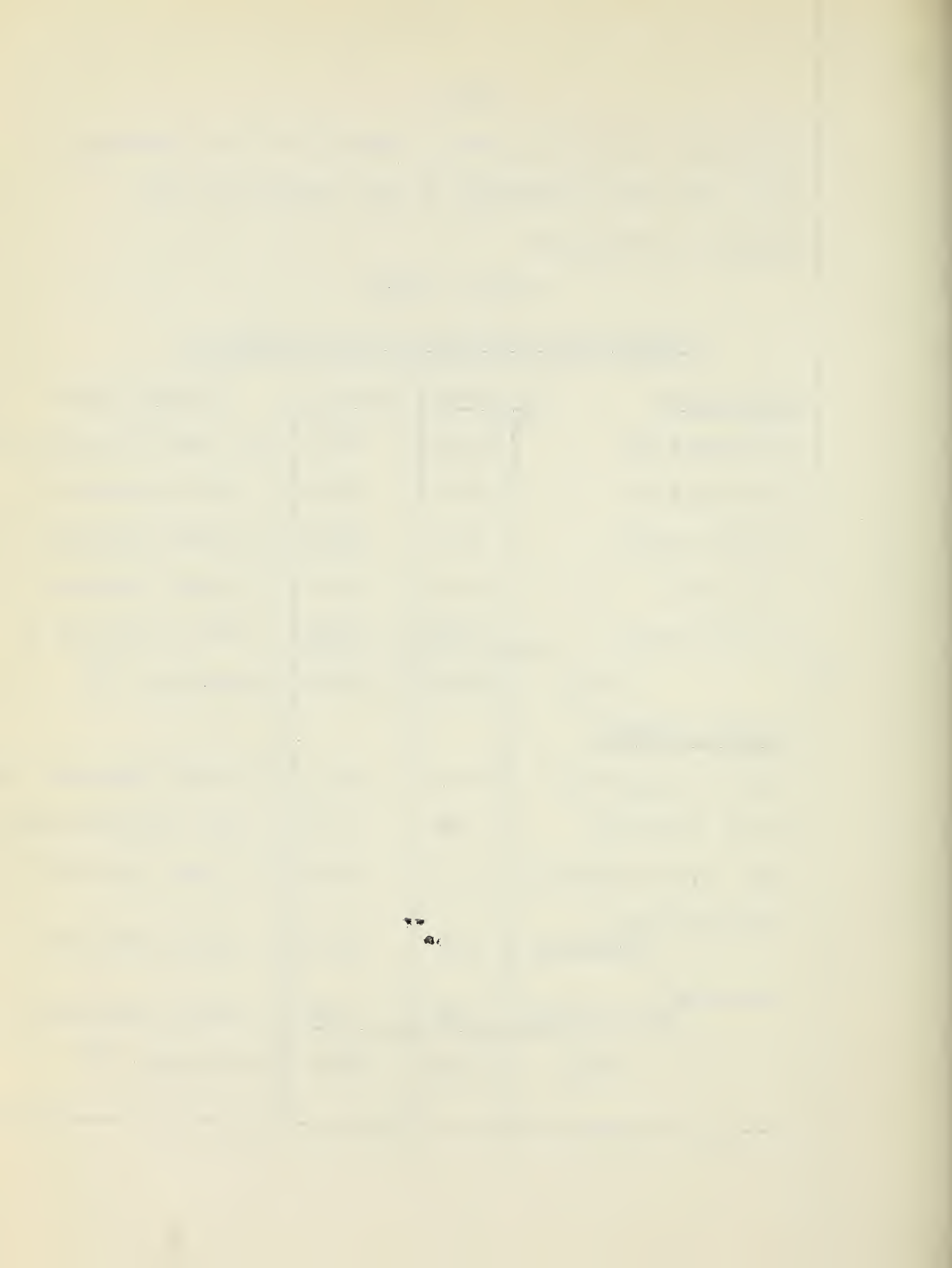


TABLE LVIII (continued)

<u>Geographical</u>	<u>Credited</u>	<u>Possible</u>	<u>Derived from</u>
Place Location	1449	3600	12 items
General geography	912	2100	7 items (combining 4(11-12)
Physical geography	571	1200	4 items
Commercial geography	1890	4500	15 items.
TOTAL	4842	11400	Percentage 42%
<u>Technical Terms</u>	2144	3900	13 items question 8 Percentage 55%
<u>Generalizations</u>	4291	9300	Percentage 45%

Percentage

-120-

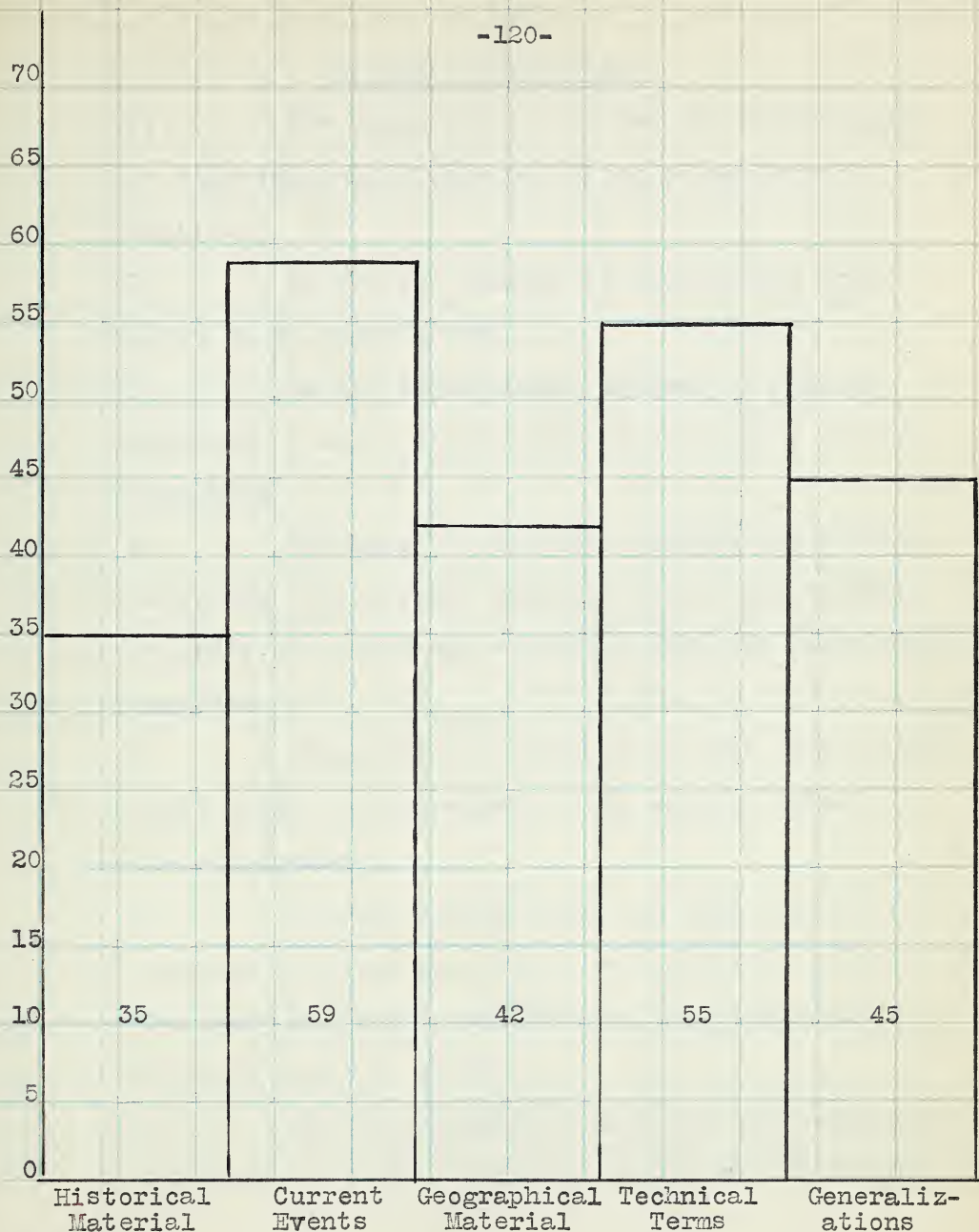


Fig. 9 Final Percentage Achievement On The Major Classifications of Objective Items, 1948.

General Conclusions

1. The border-line B student is handicapped in expressing his ideas by a lack of mastery of English.
2. He has not learned to use all the data given on an examination.
3. He has insufficient command of factual material to allow him to check the accuracy of his responses.
4. The habit of critical examination of the selection of a correct response is not established. Slightly over half the responses were not critically examined.
5. Orientation in respect to past events, and their order of occurrence is the weakest point in the achievement.
6. Current events which are symptomatic of unsolved problems are not as well mastered as are the names of persons and places, the significance of which was not tested.
7. The investigation bears out the weakness in Canadian and British history, as far as the border-

line B students are concerned, which other investigations have emphasized.

8. The results of this investigation show that the border-line B student has made very slight progress toward achieving the general objectives. The following reasons are given in support of this statement:

- (a) There is an over-emphasis on scientific invention, and an under emphasis on the social problems faced by an industrialized society.
- (b) Lack of factual knowledge about Canadian and British history makes any real appreciation of our Canadian heritage unlikely.
- (c) The frequency of guessing coupled with the large number of absurd responses shows that critical thinking is not being done on the problems posed by the examination itself.
- (d) The skill of the candidates in using maps, as shown by their attempts to interpret the maps on the examination paper, is not highly developed.

- (e) The results obtained from question 7 indicates a lack of factual detail about international problems.

9. The essay questions show that the candidates have an emphatic belief that communities must, and can, work together for more comfortable homes, improved community services, and broader horizons for all. The underlying philosophy of a Christian and democratic society ~~was~~ accepted by the candidates.

Implications

In order that a comparative study can be made at a later date, it is suggested that an examination strictly comparable to the 1948 paper be designed with the same weight given to each category of objective items.

It is suggested further that the marking system be extended to give a bonus for critical responses and a penalty for patently absurd responses.

The following concrete application of the last suggestion is offered for the last 2 items of question 4.

Items both correct - bonus 3

Items reversed - bonus 2

Items misplaced - bonus 1

Miscellaneous responses- 0

Adjacent meridians

selected - penalty 1

Identical meridian

selected - penalty 2

Such an extension of marking, where complete objectivity is possible, would give proper weight to the ability to do critical thinking.

APPENDICES

- I. Table of Responses
- II. Responses in Order of Achievement
- III. Significant Errors (Thirty and Above)
- IV: Classification of Objective Items
- V. Summary of Incorrect But Admissible Responses
- VI. A Sample Paper of the "Average" Student
- VII. Bibliography

APPENDIX I

Table of Responses

Question I

<u>Item</u>	<u>Correct</u>	<u>Wrong</u>	<u>No Attempt</u>
1. Fulton	169	88	43
2. Saunders	226	61	13
3. Wilberforce	23	44	233
4. Fry	75	119	106
5. McAdam	52	76	172
6. Owen	166	95	39
7. Wright	276	16	8
8. Crompton	139	93	68
9. Howard	49	73	178
10. Simpson	37	101	162
11. Bakewell	55	80	165
12. Hargreaves	169	73	58
13. Fleming	76	88	136

Question I (continued)

<u>Item</u>	<u>Correct</u>	<u>Wrong</u>	<u>No Attempt</u>
14. Shaftesbury	205	48	47
15. Whitney	240	37	23
16. Montgolfier	80	54	166
17. Stephenson	251	22	27
18. de Sivrac	3	56	241
19. de Forest	64	75	161
20. Marconi	275	10	15
21. Trevithick	80	74	146
22. Tull	77	62	161
23. Kay	137	56	107
24. Dailmer	155	71	74
25. Bell	290	5	5
26. McCormick	240	36	24
27. Morse	277	15	8
28. Burbank	264	29	7

Table 1. Summary of data for the 1990-1991 season.

Station	Date	Time	Location	Depth	Temperature	Salinity	Density	Wind Speed	Wind Direction	Wave Height	Wave Period	Wave Direction	Cloud Cover	Visibility	Weather	Remarks	
1	1990-10-10	08:00	10°N, 105°E	10m	28.5	35.0	1020.0	10	090	1.5	8	090	100	10	100	Clear	First observation
1	1990-10-10	12:00	10°N, 105°E	10m	29.0	35.0	1020.5	15	090	2.0	10	090	100	10	100	Clear	Second observation
1	1990-10-10	16:00	10°N, 105°E	10m	29.5	35.0	1021.0	20	090	2.5	12	090	100	10	100	Clear	Third observation
1	1990-10-10	20:00	10°N, 105°E	10m	30.0	35.0	1021.5	25	090	3.0	15	090	100	10	100	Clear	Fourth observation
1	1990-10-10	24:00	10°N, 105°E	10m	30.5	35.0	1022.0	30	090	3.5	18	090	100	10	100	Clear	Fifth observation
1	1990-10-11	00:00	10°N, 105°E	10m	31.0	35.0	1022.5	35	090	4.0	20	090	100	10	100	Clear	Sixth observation
1	1990-10-11	04:00	10°N, 105°E	10m	31.5	35.0	1023.0	40	090	4.5	22	090	100	10	100	Clear	Seventh observation
1	1990-10-11	08:00	10°N, 105°E	10m	32.0	35.0	1023.5	45	090	5.0	25	090	100	10	100	Clear	Eighth observation
1	1990-10-11	12:00	10°N, 105°E	10m	32.5	35.0	1024.0	50	090	5.5	28	090	100	10	100	Clear	Ninth observation
1	1990-10-11	16:00	10°N, 105°E	10m	33.0	35.0	1024.5	55	090	6.0	30	090	100	10	100	Clear	Tenth observation
1	1990-10-11	20:00	10°N, 105°E	10m	33.5	35.0	1025.0	60	090	6.5	32	090	100	10	100	Clear	Eleventh observation
1	1990-10-11	24:00	10°N, 105°E	10m	34.0	35.0	1025.5	65	090	7.0	35	090	100	10	100	Clear	Twelfth observation
1	1990-10-12	00:00	10°N, 105°E	10m	34.5	35.0	1026.0	70	090	7.5	38	090	100	10	100	Clear	Thirteenth observation
1	1990-10-12	04:00	10°N, 105°E	10m	35.0	35.0	1026.5	75	090	8.0	40	090	100	10	100	Clear	Fourteenth observation
1	1990-10-12	08:00	10°N, 105°E	10m	35.5	35.0	1027.0	80	090	8.5	42	090	100	10	100	Clear	Fifteenth observation
1	1990-10-12	12:00	10°N, 105°E	10m	36.0	35.0	1027.5	85	090	9.0	45	090	100	10	100	Clear	Sixteenth observation
1	1990-10-12	16:00	10°N, 105°E	10m	36.5	35.0	1028.0	90	090	9.5	48	090	100	10	100	Clear	Seventeenth observation
1	1990-10-12	20:00	10°N, 105°E	10m	37.0	35.0	1028.5	95	090	10.0	50	090	100	10	100	Clear	Eighteenth observation
1	1990-10-12	24:00	10°N, 105°E	10m	37.5	35.0	1029.0	100	090	10.5	52	090	100	10	100	Clear	Nineteenth observation
1	1990-10-13	00:00	10°N, 105°E	10m	38.0	35.0	1029.5	105	090	11.0	55	090	100	10	100	Clear	Twentieth observation
1	1990-10-13	04:00	10°N, 105°E	10m	38.5	35.0	1030.0	110	090	11.5	58	090	100	10	100	Clear	Twenty-first observation
1	1990-10-13	08:00	10°N, 105°E	10m	39.0	35.0	1030.5	115	090	12.0	60	090	100	10	100	Clear	Twenty-second observation
1	1990-10-13	12:00	10°N, 105°E	10m	39.5	35.0	1031.0	120	090	12.5	62	090	100	10	100	Clear	Twenty-third observation
1	1990-10-13	16:00	10°N, 105°E	10m	40.0	35.0	1031.5	125	090	13.0	65	090	100	10	100	Clear	Twenty-fourth observation
1	1990-10-13	20:00	10°N, 105°E	10m	40.5	35.0	1032.0	130	090	13.5	68	090	100	10	100	Clear	Twenty-fifth observation
1	1990-10-13	24:00	10°N, 105°E	10m	41.0	35.0	1032.5	135	090	14.0	70	090	100	10	100	Clear	Twenty-sixth observation
1	1990-10-14	00:00	10°N, 105°E	10m	41.5	35.0	1033.0	140	090	14.5	72	090	100	10	100	Clear	Twenty-seventh observation
1	1990-10-14	04:00	10°N, 105°E	10m	42.0	35.0	1033.5	145	090	15.0	75	090	100	10	100	Clear	Twenty-eighth observation
1	1990-10-14	08:00	10°N, 105°E	10m	42.5	35.0	1034.0	150	090	15.5	78	090	100	10	100	Clear	Twenty-ninth observation
1	1990-10-14	12:00	10°N, 105°E	10m	43.0	35.0	1034.5	155	090	16.0	80	090	100	10	100	Clear	Thirtieth observation
1	1990-10-14	16:00	10°N, 105°E	10m	43.5	35.0	1035.0	160	090	16.5	82	090	100	10	100	Clear	Thirty-first observation
1	1990-10-14	20:00	10°N, 105°E	10m	44.0	35.0	1035.5	165	090	17.0	85	090	100	10	100	Clear	Thirty-second observation
1	1990-10-14	24:00	10°N, 105°E	10m	44.5	35.0	1036.0	170	090	17.5	88	090	100	10	100	Clear	Thirty-third observation
1	1990-10-15	00:00	10°N, 105°E	10m	45.0	35.0	1036.5	175	090	18.0	90	090	100	10	100	Clear	Thirty-fourth observation
1	1990-10-15	04:00	10°N, 105°E	10m	45.5	35.0	1037.0	180	090	18.5	92	090	100	10	100	Clear	Thirty-fifth observation
1	1990-10-15	08:00	10°N, 105°E	10m	46.0	35.0	1037.5	185	090	19.0	95	090	100	10	100	Clear	Thirty-sixth observation
1	1990-10-15	12:00	10°N, 105°E	10m	46.5	35.0	1038.0	190	090	19.5	98	090	100	10	100	Clear	Thirty-seventh observation
1	1990-10-15	16:00	10°N, 105°E	10m	47.0	35.0	1038.5	195	090	20.0	100	090	100	10	100	Clear	Thirty-eighth observation
1	1990-10-15	20:00	10°N, 105°E	10m	47.5	35.0	1039.0	200	090	20.5	102	090	100	10	100	Clear	Thirty-ninth observation
1	1990-10-15	24:00	10°N, 105°E	10m	48.0	35.0	1039.5	205	090	21.0	105	090	100	10	100	Clear	Fortieth observation

Question II

<u>Key to Item Numbers</u>		<u>Key to Responses</u>	
		<u>Time Period</u>	<u>Date</u>
1. Statute of Westminster			
2. Great Reform Bill	1		1534 - 1763
3. Atlantic Charter	2		1763 - 1840
4. Women's Franchise	3		1840 - 1867
5. Cromwell's rule	4		1867 - 1885
6. William of Orange	5		1885 - 1914
7. Munich Agreement	6		1914 - 1939
8. Parliament Act	7		1939 - 1948
9. Hudson Bay Company			
10. Charles I Divine Right			
11. Burmese Independence			
12. Civil War in U.S.			
13. Robert Walpole			
14. Ceylon a Dominion			
15. Lend Lease Begun			
16. Canada Refused Reciprocity			

Question II (continued)

Item Numbers	N.A.	Response - Time Period Number						
		1	2	3	4	5	6	7
1	129	11	18	45	21	21	36	19
2	113	46	52	45	24	10	8	2
3	133	46	12	20	34	30	17	8
4	133	7	36	43	24	19	25	13
5	138	57	49	31	8	5	12	-
6	132	50	42	33	16	14	6	7
7	172	12	6	10	20	15	36	29
8	107	13	31	39	32	38	34	6
9	129	52	33	21	31	23	7	4
10	185	48	36	18	2	4	6	1
11	132	1	3	3	6	7	30	118
12	138	22	37	26	28	31	13	5
13	152	31	36	27	19	14	13	8
14	145	1	7	5	6	16	48	72
15	157	1	4	5	7	15	47	64
16	117	5	8	18	25	25	52	50

Question III

Item	Response - Definition Number						
	1	2	3	4	5	6	7
1. Delta	8	28	3	23	184	-	2
2. B. Pressure	29	2	3	1	1	141	-
3. C. Climate	76	4	23	3	-	59	-
4. C. Heritage	4	5	9	4	6	5	7
5. Aesthetics	7	7	10	-	3	3	5
6. Franchise	-	-	3	1	1	-	27
7. Hinterland	-	13	13	186	8	1	4
8. H. Theory	6	3	2	2	4	33	4
9. Isotherm	92	5	5	5	12	5	4

Key to Numbers

<u>Definition</u>	<u>Term</u>
1	Isotherm
2	Isthmus
3	Topography
4	Hinterland
5	Delta
6	Huntingdon's Theory
7	Reciprocity

1911

1911			
Date	Description	Amount	Balance
Jan 1	To Balance	100.00	100.00
Jan 10	By Cash	50.00	150.00
Jan 20	To Cash	25.00	175.00
Jan 30	By Cash	10.00	185.00
Feb 10	To Cash	30.00	215.00
Feb 20	By Cash	15.00	230.00
Feb 30	To Cash	20.00	250.00
Mar 10	By Cash	10.00	260.00
Mar 20	To Cash	15.00	275.00
Mar 30	By Cash	5.00	280.00
Apr 10	To Cash	10.00	290.00
Apr 20	By Cash	5.00	295.00
Apr 30	To Cash	5.00	300.00
May 10	By Cash	5.00	305.00
May 20	To Cash	5.00	310.00
May 30	By Cash	5.00	315.00
Jun 10	To Cash	5.00	320.00
Jun 20	By Cash	5.00	325.00
Jun 30	To Cash	5.00	330.00
Jul 10	By Cash	5.00	335.00
Jul 20	To Cash	5.00	340.00
Jul 30	By Cash	5.00	345.00
Aug 10	To Cash	5.00	350.00
Aug 20	By Cash	5.00	355.00
Aug 30	To Cash	5.00	360.00
Sep 10	By Cash	5.00	365.00
Sep 20	To Cash	5.00	370.00
Sep 30	By Cash	5.00	375.00
Oct 10	To Cash	5.00	380.00
Oct 20	By Cash	5.00	385.00
Oct 30	To Cash	5.00	390.00
Nov 10	By Cash	5.00	395.00
Nov 20	To Cash	5.00	400.00
Nov 30	By Cash	5.00	405.00
Dec 10	To Cash	5.00	410.00
Dec 20	By Cash	5.00	415.00
Dec 30	To Cash	5.00	420.00
Total	420.00	420.00	420.00

1911	
Date	Description
Jan 1	To Balance
Jan 10	By Cash
Jan 20	To Cash
Jan 30	By Cash
Feb 10	To Cash
Feb 20	By Cash
Feb 30	To Cash
Mar 10	By Cash
Mar 20	To Cash
Mar 30	By Cash
Apr 10	To Cash
Apr 20	By Cash
Apr 30	To Cash
May 10	By Cash
May 20	To Cash
May 30	By Cash
Jun 10	To Cash
Jun 20	By Cash
Jun 30	To Cash
Jul 10	By Cash
Jul 20	To Cash
Jul 30	By Cash
Aug 10	To Cash
Aug 20	By Cash
Aug 30	To Cash
Sep 10	By Cash
Sep 20	To Cash
Sep 30	By Cash
Oct 10	To Cash
Oct 20	By Cash
Oct 30	To Cash
Nov 10	By Cash
Nov 20	To Cash
Nov 30	By Cash
Dec 10	To Cash
Dec 20	By Cash
Dec 30	To Cash
Total	420.00

Question III (continued)

Item	Response - Definition Number							
	8	9	10	11	12	13	14	No. Def.
1. Delta	2	3	1	2	5	3	1	-
2. B. Pressure	-	3	-	-	-	-	-	120
3. C. Climate	1	6	-	-	12	1	-	105
4. C.Heritage	167	2	2	1	33	2	10	-
5. Aesthetic	19	5	1	8	53	11	3	-
6. Franchise	6	2	2	180	8	2	5	-
7. Hinterland	1	6	1	1	3	11	3	-
8. H. Theory	10	6	2	4	23	2	10	-
9. Isotherm	3	5	2	2	8	3	4	

Key to Numbers

<u>Definition</u>	<u>Term</u>
8.	Cultural Heritage
9.	Standard of Living
10.	Representative Government
11.	Franchise
12.	Aesthetic Expression
13.	Propaganda
14.	Urban
	None Given - Barometric Pressure
	None Given - Continental Climate
	None Given - Peninsula
	None Given - Roaring Forties

Question III (continued)

Item	Response - Definition Number						
	1	2	3	4	5	6	7
10. Isthmus	16	66	4	10	13	5	4
11. Peninsula	6	132	2	30	17	2	-
12. Propaganda	-	-	-	-	-	-	14
13. Reciprocity	-	-	2	-	1	1	169
14. Rep. Gov't.	-	-	-	-	-	-	10
15. Roaring Forties	-	-	4	2	6	1	4
16. Standard of Living	-	-	-	-	-	1	5
17. Topography	12	3	187	1	1	2	-
18. Urban	-	2	4	6	5	1	-
Blank	44	30	26	26	38	40	41

Key to Numbers

<u>Definition</u>	<u>Term</u>
1.	Isotherm
2.	Isthmus
3.	Topography
4.	Hinterland
5.	Delta
6.	Huntingdon's Theory
7.	Reciprocity

Question III (continued)

Item	Response			Definition Number				No Def.
	8	9	10	11	12	13	14	
10. Isthmus	4	4	-	1	6	3	3	103
11. Peninsula	-	-	-	-	2	1	5	
12. Propaganda	13	6	3	3	1	198	1	
13. Reciprocity	7	4	9	27	6	7	8	
14. Rep. Gov't.	-	-	246	13	-	3	2	232
15. Roaring Forties	14	6	2	4	9	5	11	
16. Standard of Living	6	207	-	3	5	2	17	
17. Topography	8	1	-	-	40	3	5	
18. Urban	1	12	2	3	10	6	171	
Blank	38	22	27	48	86	37	45	

Key to Numbers

<u>Definition</u>	<u>Term</u>
8. Cultural Heritage	14. Urban
9. Standard of Living	None Given - Barometric Pressure
10. Representative Government	None Given - Continental Climate
11. Franchise	None Given - Peninsula
12. Aesthetic Expression	None Given - Roaring Forties
13. Propaganda	

Question IV

Meridian	Response	1	2	3	4	5	6
90° E	A	18	4	1	1	1	-
75° E	B	1	2	-	4	-	3
60° E	C	3	1	3	2	-	56
45° E	D	-	3	-	1	4	113
30° E	E	5	1	-	11	-	15
15° E	F	10	11	-	230	-	13
0°	G	70	35	2	11	1	18
15° W	H	3	6	1	1	-	3
30° W	I	3	6	-	1	1	4
45° W	J	3	5	1	2	7	3
60° W	K	1	1	1	1	5	5
75° W	L	15	9	3	2	23	1

Key to Numbers

1. Zero Degrees
2. International Date Line
3. Great Bear Lake
4. Norway
5. North Canada
6. Caspian Sea

Question IV (continued)

Meridian Response		1	2	3	4	5	6
90° W	M	5	3	12	4	54	1
105° W	N	3	17	22	2	83	2
120° W	O	15	8	235	1	28	1
135° W	P	4	12	-	1	33	-
150° W	Q	-	5	-	-	16	1
165° W	R	19	29	2	-	18	-
180°	S	9	18	-	2	3	4
165° E	T	-	1	-	3	-	4
150° E	U	2	2	1	1	4	7
135° E	V	2	5	1	2	1	3
120° E	W	1	-	-	-	1	1
105° E	X	24	4	-	-	1	2
Blank		76	112	15	17	16	40

Key to Numbers

1. Zero Degrees
2. International Date Line
3. Great Bear Lake
4. Norway
5. North Canada
6. Caspian Sea

Question IV (continued)

Meridian Response		7	8	9	10	11	12
90° E	A "	3	2	3	-	30	40
75° E	B	3	3	3	-	4	6
60° E	C	-	4	4	-	2	8
45° E	D	2	5	2	-	5	5
30° E	E	-	6	4	-	3	3
15° E	F	2	21	5	-	4	9
0°	G	2	15	5	-	38	24
15° W	H	198	4	6	-	10	6
30° W	I	-	3	13	3	3	8
45° W	J	40	9	16	6	6	4
60° W	K	2	19	23	188	4	5
75° W	L	6	18	39	16	14	6

Key to Numbers

7. Iceland
8. Bering Strait
9. Great Circle Route
10. Gulf of St. Lawrence
11. 6 a.m. Meridian
12. 6 p.m. Meridian.

Question IV (continued)

Meridian Response		7	8	9	10	11	12
90° W	M	2	8	22	40	42	42
105° W	N	3	2	10	10	18	16
120° W	O	2	2	1	2	8	4
135° W	P	2	2	4	1	3	5
150° W	Q	1	6	-	1	2	1
165° W	R	1	72	4	-	9	6
180°	S	-	26	4	-	14	12
165° E	T	1	2	3	1	4	6
150° E	U	1	3	16	3	-	3
135° E	V	1	10	19	2	1	5
120° E	W	-	2	15	-	4	2
105° E	X	2	-	8	1	5	6
Blank		26	58	71	26	67	68

Key to Numbers

- 7. Iceland
- 8. Bering Strait
- 9. Great Circle Route
- 10. Gulf of St. Lawrence
- 11. 6 a.m. Meridian
- 12. 6. p.m. Meridian

Question V

<u>Mark</u>	<u>f</u>	<u>Mark</u>	<u>f</u>	<u>Mark</u>	<u>f</u>	<u>Mark</u>	<u>f</u>
1	5	1	1	1	1	1	0
2	8	2	1	2	2	2	1
3	28	3	2	3	2	3	3
4	36	4	4	4	8	4	2
5	57	5	4	5	6	5	12
6	39	6	3	6	1	6	10
7	23	7	1	7	1	7	8
8	16	8	1	8	1	8	0
9	6	9	-	9	1	9	1
10	2	10	-	10	0	10	0
N -220		N - 17		N - 23		N - 37	

<u>Topic</u>	<u>Subject</u>	<u>f</u>
1	What the school does for society.	220
2	How music breaks down racial prejudice.	17
3	Why modern communities encourage drama.	23
4.	Importance of religion to individual happiness	37

Question VI (a)

<u>Item</u>	<u>Response</u>			N.A.
	1	2	3	
1	131	139	27	3
2	174	16	107	3
3	73	132	92	3
4	76	71	145	8
5	74	113	104	9

Key to Responses

1. Tropic of Cancer
2. Equator
3. Tropic of Capricorn

Key to Items

1. Sun overhead June 21st.
 2. Least daylight December 22nd.
 3. Sun overhead March 21st.
 4. South east wind September 23rd.
 5. Most rainfall September 23rd.
-

Question VI (b)

Key to Responses

Items

	1	2	3	4	5
A Great Britain	6	-	1	-	-
B Italy	18	-	3	3	-
C Baku	11	4	33	5	-
D Siberia	42	4	146	2	-
E Japan	4	-	2	1	2
F Mount Everest	13	6	52	5	4
G Central Australia	2	6	3	4	2
H New South Wales	15	-	-	3	-
I Pakistan	19	7	16	6	11
J Central Africa	5	87	6	18	5
K Madagascar	5	1	2	3	10

Key to Items

1. Lowest Barometric Pressure
2. Area of Tropical Jungle
3. Area of Tundra in Asia
4. Gold and Diamonds Produced
5. Area Famous for Coffee.

Question VI(b) (continued)

Key to Responses	Items				
	6	7	8	9	10
A Great Britain	2	2	10	16	14
B Italy	1	3	-	21	5
C Baku	6	-	-	6	3
D Siberia	3	2	-	5	5
E Japan	2	2	3	3	2
F Mount Everest	2	7	-	2	-
G Central Australia	2	2	-	2	28
H New South Wales	-	7	1	4	34
I Pakistan	1	24	-	3	2
J Central Africa	9	20	1	3	1
K Madagascar	2	26	3	14	-

Key to Items

- 6. Uranium Ore Mined
- 7. Sugar Cane, Cotton, Ivory
- 8. Port Shipping Salmon, Halibut
- 9. Port Famous for Nitrates
- 10. Great Numbers of Beef Cattle

Question VI(b) (continued)

Key to Responses	Items				
	11	12	13	14	15
A Great Britain	-	-	4	4	-
B Italy	18	6	27	54	3
C Baku	3	1	9	11	14
D Siberia	1	1	-	1	23
E Japan	6	2	4	2	0
F Mount Everest	8	2	16	16	33
G Central Australia	2	2	6	6	119
H New South Wales	4	1	9	8	-
I Pakistan	11	4	18	13	4
J Central Africa	39	23	13	13	15
K Madagascar	36	14	28	27	2

Key to Items

11. Area producing Palm Oil
12. Area Famous for Bananas
13. Source of Graphite and Vanilla
14. Source of Olive Oil
15. Large Desert Area

Question VI(b) (continued)

Key to Responses	Items				
	16	17	18	19	20
A Great Britain	13	165	3	20	-
B Italy	2	17	21	6	16
C Baku	7	10	83	3	32
D Siberia	4	4	14	1	1
E Japan	-	7	11	171	4
F Mount Everest	2	9	16	27	55
G Central Australia	81	1	2	1	-
H New South Wales	111	6	4	3	1
I Pakistan	2	1	23	10	161
J Central Africa	2	-	8	1	13
K Madagascar	-	-	6	2	2

Key to Items

- 16. Produces Wool and Wheat
- 17. Exports Steel, Textiles, Pottery
- 18. Baku Oil Fields
- 19. Exports Silk and Manufactured Cotton
- 20. Dominion of Pakistan

Question VI (b) (continued)

Key to Responses	Items				
	1	2	3	4	5
L South Africa	2	43	1	128	2
M Nigeria	4	32	1	80	3
N Brazil	2	20	-	4	168
O Argentine	8	13	1	9	18
P Valparaiso	9	4	-	3	3
Q Amazon Valley	7	55	-	2	59
R Honduras	16	2	-	2	5
S Louisiana	4	1	-	3	1
T Montreal	1	-	-	3	-
U Prince Rupert	5	1	-	4	-
V Great Bear Lake	25	1	1	3	-
Items not Attempted	87	13	32	9	7

Key to Items

1. Lowest Barometric Pressure
2. Area of Tropical Jungle
3. Area of Tundra in Asia
4. Gold and Diamonds Produced
5. Area Famous for Coffee.

Question VI(b) (continued)

Key to Responses	Items				
	6	7	8	9	10
L South Africa	1	50	-	2	2
M Nigeria	5	31	-	9	2
N Brazil	1	15	-	6	5
O Argentine	1	28	-	3	73
P Valparaiso	1	11	-	54	8
Q Amazon Valley	3	16	1	8	6
R Honduras	1	14	-	12	4
S Louisiana	7	14	1	5	60
T Montreal	23	1	107	36	11
U Prince Rupert	5	3	166	9	9
V Great Bear Lake	201	-	-	5	6
Items not Attempted	21	22	7	72	20

Key to Items

6. Uranium Ore Mined
7. Sugar Can, Cotton, Ivory
8. Port Shipping Salmon, Halibut
9. Port Famous for Nitrates
10. Great Numbers of Beef Cattle

Question VI(b) (continued)

Key to Responses		Items				
		11	12	13	14	15
L	South Africa	14	16	4	10	19
M	Nigeria	30	25	5	12	20
N	Brazil	8	32	6	11	9
O	Argentine	21	32	8	9	3
P	Valparaiso	8	17	9	14	2
Q	Amazon Valley	11	25	6	9	14
R	Honduras	20	55	14	4	-
S	Louisiana	10	19	9	5	2
T	Montreal	1	1	4	2	-
U	Prince Rupert	1	-	2	1	-
V	Great Bear Lake	-	-	1	-	-
Items not Attempted		48	22	98	68	18

Key to Items

11. Area producing Palm Oil
12. Area Famous for Bananas
13. Source of Graphite and Vanilla
14. Source of Olive Oil
15. Large Desert Area

Question VI(b) (continued)

Key to Responses	Items				
	16	17	18	19	20
L South Africa	-	1	3	1	-
M Nigeria	-	3	4	2	3
N Brazil	-	1	-	2	1
O Argentine	17	2	3	1	1
P Valparaiso	3	5	2	-	-
Q Amazon Valley	3	3	2	-	-
R Honduras	0	4	5	1	-
S Louisiaha	20	13	10	22	-
T Montreal	11	17	2	3	-
U Prince Rupert	3	1	1	-	-
V Great Bear Lake	3	1	10	-	-
Items not Attempted	16	29	67	23	20

Key to Items

16. Produces Wool and Wheat
17. Exports Steel, Textiles, Pottery
18. Baku Oil Fields
19. Exports Silk and Manufactured Cotton
20. Dominion of Pakistan

Question VII

Marks Obtained - Possible Mark 300		
<u>Question</u>	<u>Mark</u>	
(a) For	69	Establishment of an International Police Force
(a) Against	58	
(b) For	64	Teaching International Under- standing through U.N.E.S.C.O.
(b) Against	29	
(c) For	111	Complete Disarmament
(c) Against	93	
(d) For	57	Permanent Military Union of Britain and United States
(d) Against	122	

Question VIII

Material Social Problems Associated	Response				
	A	B	C	D	E
1 Dependence on Transport- ation	15	7	129	11	-
2 International Relations	13	175	11	5	8
3 Freedom of Speech	9	21	-	3	4
4 Real Wages	172	2	2	1	-
5 Freedom of Religion	1	15	3	15	55
6 Racial Hatred	2	38	9	25	128
7 Conservation of Resources	31	13	41	7	2
8 Delinquency	7	10	15	41	3
9 Strikes	13	-	2	-	2
10 War	1	33	1	1	162
11 Medical Services to backward areas	1	-	24	180	-
12 Control of Infectious diseases	-	-	1	2	2
13 Use of Leisure	23	2	30	6	1

Key to Responses

- A. Cost of Living Index 146.
- B. No Agreement on Peace Treaties.
- C. Snowstorm in New York.
- D. Canon Turner injured in North.
- E. Jews - Arabs fight in Palestine.

Question VIII (continued)

Material Social Problems Associated	Response			
	F	G	H	Blank
1 Dependence on Transportation	-	8	12	118
2 International Relations	-	14	1	73
3 Freedom of Speech	-	108	-	145
4 Real Wages	-	7	12	104
5 Freedom of Religion	2	10	-	199
6 Racial Hatred	1	7	-	90
7 Conservation of Resources	-	8	71	127
8 Delinquency	7	43	2	172
9 Strikes	-	2	232	49
10 War	-	4	-	98
11 Medical Services to backward areas	36	2	2	55
12 Control of Infectious diseases	277	1	-	17
13 Use of Leisure	2	87	2	147

Key to Responses

F. High Death Rate caused by Whooping Cough.

G. Interrogation of Hollywood Writers.

H. Coal Shortage in Western Canada

Question IX

Item	Response					N.A.
	A	B	C	D	E	
1	4	3	283	4	4	2
2	128	22	87	48	12	3
3	39	10	23	209	16	3
4	54	201	15	18	8	4
5	35	56	65	28	112	4

Key to Items

Material Tested

1. First item of a meeting.
2. Procedure after discussion complete.
3. Procedure after minutes are read.
4. Definition of a change in a motion.
5. Proper role of the chairman.

Key to Responses

Item 1

- A report of a committee
- B financial report
- C reading of the minutes
- D discussion of old business
- E discussion of most important business.

Question IX (continued)

Key to Responses

Item 2

- A call for a motion
 - B chairman makes a motion
 - C call for a show of hands
 - D decide what the meeting wants to do
 - E Pass on to the next item.
-

Item 3

- A someone moves adoption
 - B Are these minutes satisfactory?
 - C Declared adopted as read.
 - D Are there any corrections or additions?
 - E The minutes stand approved as read.
-

Item 4

- A a sub-motion
 - B an amendment
 - C an adjournment
 - D an adoption
 - E a prorogue
-

Question IX (continued)

Key to Responses

Item 5

- A have something definite to say on each item
 - B participate freely in the discussion
 - C be prepared to summarize others' statements
 - D never participate in the discussion
 - E lead the discussion.
-

Question X

Photo	Item matched with Photo						
	1	2	3	4	5	6	7
A Pope Pius	4	4	10	1	-	15	-
B Elizabeth	1	-	-	-	-	1	-
C Roosevelt	-	1	-	-	-	-	-
D Attlee	143	1	13	17	2	6	-
E Stalin	2	-	9	5	2	3	2
F de Gaulle	4	2	126	-	19	4	3
G Molotoff	15	1	8	8	1	4	-
H Chiang Kai Shek	-	272	4	-	2	4	-
I Jinnah	-	9	13	8	2	15	-
J Dewey	4	-	1	123	3	12	-

Key to Items

1. Atlee
2. Chiang Kai Shek
3. de Gaulle
4. Dewey
5. Eisenhower
6. Ford
7. George VI

Question X (continued)

Photo	Item matched with Photo						
	8	9	10	11	12	13	14
A Pope Pius	-	-	10	1	-	3	2
B Elizabeth	-	-	1	-	-	-	-
C Roosevelt	-	295	-	-	-	-	-
D Attlee	-	-	2	6	5	3	5
E Stalin	-	-	3	1	-	1	30
F de Gaulle	-	-	6	1	2	5	16
G Molotoff	-	2	1	3	4	5	108
H Chiang Kai Shek	-	-	5	-	-	-	1
I Jinnah	-	-	94	-	-	1	3
J Dewey	-	-	4	10	2	9	8

Key to Items

- 8. Scott
- 9. Roosevelt
- 10. Jinnah
- 11. Lewis
- 12. King
- 13. Marshall
- 14. Molotoff

Question X (continued)

Photo	Item matched with Photo					
	15	16	17	18	19	20
A Pope Pius	-	1	185	1	2	3
B Elizabeth	297	-	-	-	-	-
C Roosevelt	-	-	-	-	-	-
D Attlee	1	2	2	-	2	6
E Stalin	-	-	-	222	-	-
F de Gaulle	-	2	1	12	-	3
G Molotoff	-	6	-	7	5	5
H Chiang Kai Shek	-	-	1	-	-	-
I Jinnah	-	1	45	-	-	1
J Dewey	-	11	-	3	3	11

Key to Items

- 15. Elizabeth
- 16. Manning
- 17. Pope Pius
- 18. Stalin
- 19. Truman
- 20. Wallace

Question X (continued)

Photo	Item matched with Photo						
	1	2	3	4	5	6	7
K Scott	-	-	-	-	-	-	-
L Eisenhower	13	-	1	2	160	4	-
M Wallace	8	-	-	3	1	7	2
N King	12	-	1	5	4	13	-
O George VI	2	-	-	-	1	-	273
P Manning	4	1	-	1	2	2	-
Q Truman	3	-	-	2	4	4	-
R Marshall	7	-	1	6	45	-	4
S Ford	5	-	-	2	5	95	3
T Lewis	-	-	-	2	2	3	1
Left Blank	73	9	105	115	45	108	12

Key to Items

1. Atlee
2. Chiang Kai Shek
3. de Gaulle
4. Dewey
5. Eisenhower
6. Ford
7. George VI

Question X (continued)

Photo	Item matched with Photo						
	8	9	10	11	12	13	14
K Scott	300	-	-	-	-	1	-
L Eisenhower	-	-	5	7	6	18	-
M Wallace	-	1	1	11	23	5	2
N King	-	-	1	6	133	6	1
O George VI	-	-	-	-	17	-	-
P Manning	-	-	2	1	1	7	1
Q Truman	-	-	2	-	6	4	-
R Marshall	-	-	-	-	20	122	2
S Ford	-	-	7	2	17	9	6
T Lewis	-	-	1	220	11	-	4
Left Blank	-	2	155	31	53	99	111

Key to Items

8. Scott

9. Roosevelt

10. Jinnah

11. Lewis

12. King

13. Marshall

14. Molotoff

Question X (continued)

Photo	Item matched with Photo					
	15	16	17	18	19	20
K Scott	-	-	-	-	-	-
L Eisenhower	-	4	2	1	3	3
M Wallace	-	10	-	-	9	82
N King	-	10	-	2	22	15
O George VI	-	4	-	1	2	-
P Manning	-	141	1	-	7	10
Q Truman	-	9	-	1	203	4
R Marshall	-	3	-	2	5	8
S Ford	-	3	1	3	2	9
T Lewis	-	1	-	8	6	13
Left Blank	2	92	62	36	29	127

Key to Items

15. Elizabeth

16. Manning

17. Pope Pius

18. Stalin

19. Truman

20. Wallace.

Question XI

Topic 1.		2		3		4 - all topics	
Mark	f	Mark	f	Mark	f	Mark	f
1	0	1	0	1	0	1	0
2	1	2	0	2	0	2	1
3	1	3	2	3	0	3	3
4	1	4	0	4	0	4	1
5	6	5	7	5	4	5	17
6	12	6	5	6	5	6	22
7	23	7	9	7	3	7	35
8	29	8	14	8	3	8	46
9	39	9	8	9	7	9	54
10	37	10	8	10	3	10	48
11	27	11	3	11	4	11	34
12	15	12	2	12	0	12	17
13	9	13	0	13	1	13	10
14	8	14	1	14	0	14	9
15	1	15	0	15	0	15	1
16	0	16	0	16	0	16	0
N - 209		N - 59		N - 30		N - 298	

Marks Deducted For Spelling - Maximum 10.

<u>Marks Deducted</u>	<u>f</u>
0	31
1	30
2	27
3	36
4	29
5	26
6	34
7	23
8	14
9	11
10	39

Average 4.68 per paper.

APPENDIX II
Tabulation of Responses in Order of Achievement

Question I

Rank	Name	Group	Correct	Wrong	N.A.
1	Bell	E	290	5	5
2	Morse	E	277	15	8
3	Wright	D	276	16	8
4	Marconi	E	275	10	15
5	Burbank	C	264	29	7
6	Stephenson	D	251	22	27
7	McCormick	B	240	36	24
8	Whitney	A	240	37	23
9	Saunders	C	226	61	13
10	Shaftesbury	F	205	48	47
11	Hargreaves	A	169	73	58
12	Fulton	D	169	88	43
13	Owen	F	166	95	39
14	Dailmer	D	155	71	74

Question I (continued)

Rank	Name	Group	Correct	Wrong	N.A.
15	Crompton	A	139	93	68
16	Kay	A	137	56	107
17	Trevithick	D	80	74	146
18	Montgolfier	D	80	54	166
19	Tull	B	77	62	161
20	Fleming	G	76	88	136
21	Fry	C	75	119	106
22	Deforest	E	64	75	161
23	Bakewell	C	55	80	165
24	McAdam	D	52	76	172
25	Howard	F	49	73	178
26	Simpson	G	37	101	162
27	Wilberforce	F	23	44	233
28	de S ix erac	D	3	56	241

Question II

Rank	Material	Correct	Wrong	N.A.
1	Burmese independence	118	50	132
2	Ceylon's dominion	72	83	145
3	status Lendlease instituted	64	79	157
4	Cromwell's rule	57	105	138
5	Hudson Bay Charter	52	119	129
6	Great Reform Bill	52	135	113
7	William of Orange	50	118	132
8	Charles I Divine Right	48	67	185
9	Parliament Act	38	155	107
10	Munich agreement	36	92	172
11	Statute of Westminster	36	135	129
12	Robert Walpole	31	117	152
13	Civil War in U.S.	26	136	138
14	Canada refused reciprocity	25	158	117
15	Women received the franchise	25	142	133
16	Atlantic Charter was signed.	8	159	133

Question III

Rank	Material	Correct	Wrong	N.A.
1	Representative Gov't.	246	37	27
2	Roaring forties	232	68	-
3	Standard of living	207	71	22
4	Propaganda	198	65	37
5	Topography	187	101	12
6	Hinterland	186	88	26
7	Delta	184	78	38
8	Franchise	180	72	48
9	Urban	171	84	45
10	Reciprocity	169	90	41
11	Cultural heritage	167	95	38
12	Barometric pressure	120	180	0
13	Continental climate	105	195	-
14	Peninsula	103	197	-
151	Isotherm	92	164	44
16	Isthmus	66	204	30
17	Aesthetic expression	53	161	86
18	Huntingdon's Theory	33	223	40

Question III (continued)

The correct response for items ranked 2nd, 12th, 13th, 14th in Question III was not to use them, because no definition was provided for each of these items. The table means that the item roaring forties was matched with a definition in column B 68 times and omitted altogether 232 times, etc.

Question IV

Rank	Material	Correct	Wrong	N.A.
1	Great Bear Lake	235	50	15
2	Norway	230	53	17
3	Iceland	198	76	26
4	Gulf St. Lawrence	188	86	26
5	Caspian Sea	113	147	40
6	Bering Strait	72	170	58
7	Zero Meridian	70	154	76
8	6 a.m. Meridian	42	191	67
9	6 p.m. Meridian	40	192	68
10	Northern Canada	23	261	16
11	Date Line	18	170	112
12	Great Circle Route	8	221	71

Question V

Essay

<u>Average Mark</u>	<u>Topic</u>	<u>f</u>
5.51	Religion	37
5.01	School	220
4.59	Music	17
4.48	Drama	23

3 candidates made no attempt.

Possible mark 10.

Average for 300 papers 5.03.

Question VI (a)

Rank	Material	Correct	Wrong	N.A.
1	Position of sun Dec. 22nd.	174	123	3
2	Prevailing winds Sept. 23rd.	145	147	8
3	Position of sun March 21st.	132	165	3
4	Position of sun June 21st.	131	166	3
5	Prevailing rainfall Sept. 23rd.	113	178	9

Question VI (b)

Rank	Material	Correct	Wrong	N.A.
1	Uranium	201	78	21
2	Silk & cotton exports	171	106	23
3	Coffee	168	125	7
4	Salmon and halibut	166	127	7
5	Steel and textile exports	165	106	29
6	Pakistan	161	119	20
7	Asian tundra	146	122	32
8	Gold and diamonds	128	163	9
9	Desert area	119	163	18
10	Wool and wheat	111	173	16
11	Baku oil fields	83	150	67
12	Beef cattle	73	207	20
13	Bananas	55	223	22
14	Tropical jungle	55	232	13
15	Olive oil	54	178	68
16	Nitrates	54	174	72
17	Palm oil	30	222	48
18	Graphite and vanilla	28	174	98
19	Sugar-cane, cotton ivory	20	258	22
20	Area of lowest baromet- ric pressure	13	200	87

Question VII

<u>Rank</u>	<u>Material</u>	<u>Correct</u>	<u>Wrong</u>	<u>N.A.</u>
1	Against British - American Union	122	88	97
2	For complete disarmament	111	97	92
3	Against complete disarmament	93	106	101
4	For an international police force	69	160	71
5	For a successful effort by U.N.E.S.C.O.	64	110	126
6	Against an international police force	58	161	81
7	For British - American Union	57	129	114
8	Against a successful effort by U.N.E.S.C.O.	29	110	161

Question VIII

Rank	Material	Correct	Wrong	N.A.
1	Control of infectious diseases	277	6	17
2	Strikes	232	19	49
3	Freedom of religion	199	101	0
4	Medical services to outlying areas	180	65	55
5	International relations	175	52	73
6	Real wages	172	24	104
7	Delinquency	172	128	-
8	Leisure time	147	153	-
9	Dependence on transportation	129	53	118
10	Racial hatred	128	82	90
11	Conservation of natural resources	127	173	-
12	Freedom of Speech	108	47	145
13	War	98	202	-

1. The correct response to items 3,7,8,11 and 13 was to leave them blank.

Question IX

Rank	Material	Correct	Wrong	N.A.
1	First Item of business	283	15	2
2	Adoption of minutes	209	88	3
3	Change in wording	201	95	4
4	Action after discussion	128	169	3
5	Role of chairman	65	231	4

Question X

Rank	Material	Correct	Wrong	N.A.
1	Scott	300	-	-
2	Elizabeth	297	1	2
3	Roosevelt	295	3	2
4	George VI	273	15	12
5	Chiang	272	19	9
6	Stalin	222	42	36
7	Lewis	220	49	31
8	Truman	203	68	29
9	Pope Pius	185	53	62
10	Eisonhower	160	95	45
11	Attlee	143	84	73
12	Manning	142	67	92
13	King	133	114	53
14	de Gaulle	126	69	105
15	Dewey	123	62	115
16	Marshall	122	79	99
17	Molotoff	108	81	111
18	Ford	95	97	108
19	Jinnah	94	51	155
20	Wallace	82	91	127

Question XI

Topic	Average	f
1. Household conveniences	9;3	209
2. Health services	8.1	30
3. Family recreation	7.9	59

Average for 300 candidates 8.9

2 candidates did not attempt
question XI

APPENDIX III

Tabulation of Significant Errors

(30 responses and above)

Question II

Material	Period Chosen	Cases
Statute of Westminster	1840 - 1867	45
Great Reform Bill	1534 - 1763	46
Great Reform Bill	1840- 1867	45
Atlantic Charter	1534 - 1763	46
Atlantic Charter	1867 - 1885	34
Atlantic Charter	1885 - 1914	30
Women's Franchise	1763 - 1840	36
Women's Franchise	1840 - 1867	43
Cromwell's rule	1763 - 1840	39
Cromwell's rule	1840 - 1867	31
William of Orange	1763 - 1840	42
William of Orange	1840 - 1867	33
Parliament Act	1763 - 1840	31
Parliament Act	1840 - 1867	39
Parliament Act	1867 - 1885	32
Parliament Act	1914 - 1939	34

Question II (continued)

Material	Period Chosen	Cases
Hudson's Bay Co. Charter	1763 - 1840	33
Hudson's Bay Co; Charter	1867 - 1885	31
Charles I Divine Right	1763 - 1840	36
Burmese independence	1914 - 1939	30
Civil War in U.S.	1763 - 1840	37
Civil War in U.S.	1885 - 1914	31
Robert Walpole	1763 - 1840	36
Ceylon a dominion	1914 - 1939	48
Lend lease begun	1914 - 1939	47
Canada refuses reciprocity	1914 - 1939	52
Canada refuses reciprocity	1939 - 1948	50

Question III

Term	Definition for	Cases
Barometric pressure	Huntingdon's Theory	141
Continental Climate	Isotherm	76
Continental Climate	Huntingdon's Theory	59
Cultural heritage	Aesthetic expression	33
Peninsula	Isthmus	132
Peninsula	Hinterland	30
Topography	Aesthetic expression	40

Question IV

	Cases
International date line at zero degrees (G)	35
Northern most point in Canada (M)	54
Northern most point in Canada (N)	83
Northern most point in Canada (P)	33
Caspian Sea (East for West) (C)	56
Iceland (Greenlan selected) (J)	40
Great circle route (West for East) (L)	39
Gulf of St. Lawrence (Hudson's Bay) (M)	40
6 a.m. meridian (Same as London) (G)	38
6 a.m. meridian (reversed) (A)	30
6 p.m. meridian (reversed) (M)	42

Question VI (a)

	Cases
Equator taken as Tropic of Cancer	139
Tropic of Capricorn as Tropic of Cancer	107
Tropic of Cancer as Equator	73
Tropic of Capricorn as Equator	92
South East Trades at Cancer	76
South East Trades at Equator	71
September rains at Cancer	74
September rains at Capricorn	104

Question VI (b)

	Cases
Lowest barometric pressure at Siberia	42
Tropical Jungle at Lake Victoria Nyanza	87
Tropical Jungle on South African Veldt	43
Tropical Jungle in Nigeria	32
Asian Tundra at Baku	33
Asian Tundra in Himalaya range	52
Coffee in Amazon basin	59
Salmon and halibut at Montreal	107
Nitrates shipped from Montreal	36
Beef cattle in New South Wales	34
Beef cattle in Mississippi delta	60
Palm oil at Lake Victoria Nyanza	39
Palm oil in Madagascar	36
Bananas in South eastern Brazil	32
Bananas in Argentine	32
Wool and wheat in Central Australia	81
Pakistan at Baku	32
Pakistan in Himalaya range	55

Question VIII

<u>EVENT</u>	<u>Related to</u>	<u>Cases</u>
Freedom of religion	Palestine (E)	55
Racial Hatred	No peace treaty(B)	38
Conservation	Coal shortage (H)	71
Conservation	(Western Canada)	
Conservation	Cost of living (A)	31
Conservation	Snow in New York (C)	41
Delinquency	Canon Turner (D)	41
Delinquency	Questioning writers(G)	43
War	No peace treaty (B)	33
War	Palestine (E)	162
Medical services	Whooping cough (F)	36
Leisure	Snow in New York (C)	30
Leisure	Questioning writers(G)	87

Question IX

	<u>Cases</u>
After discussion chairman should call for show of hands	87
After discussion chairman should decide what meeting wants.	48
Immediately after reading the minutes, move adoption	39
Change in wording of a seconded motion is a sub-motion	54
The chairman should say something on each item.	35
The chairman should participate freely	56
The chairman should lead the discussion	112

Question X

Name	Photo selected	Cases
Eisenhower	Marshall	35
Molotoff	Stalin	30
Pope Pius	Jinnah	45

APPENDIX IV

Classification of Objective Items

Factual items - Historical

Question	Item	Sub-class
1	1- 28	Biographical
2	5 - 6	Biographical
2	9 - 10	Biographical
2	13	Biographical
2	1 - 16	Chronological
2	1 - 10	Political
2	12 - 13	Political
2	15 - 16	Political
9	1 - 5	Miscellaneous

Factual Items : Current Events

Question	Item	Sub-class
2	11	Political
2	14	Political
6(b)	20	Political
7	1 - 8	Political
8	1 - 3	Social
8	4	Social
8	6	Social
8	9	Social
8	11 - 12	Social
10	1 - 20	Personal

Factual Items - Geographical

Question	Item	Sub-class
4	2 - 12	place location
6(b)	3	place location
6(b)	18	place location
6(b)	20	place location
6(a)	1 - 5	general
4	1	general
4	11- 12	general
6(b)	1 - 3	Physical
6(b)	15	Physical
6(b)	4 - 14	Commercial
6(b)	16- 19	Commercial

Technical Terms - Political

Question	Item	Terms Included
2	4	Franchise
2	6	Ministers
2	11 - 14	Independence, civil war, commonwealth prime minister
3	10 - 11	representative, con- stitutional, franchise.

Technical Terms - Economic

<u>Question</u>	<u>Item</u>	<u>Terms Included</u>
2	15 - 16	Lend lease, reciprocity
3	7	Reciprocity
6(b)	17	Exports
6(b)	19	Exports
8	4	Real wages
8	7	Conservation

Technical Terms - Geographical

<u>Question</u>	<u>Item</u>	<u>Terms Included</u>
3	2 - 5	Isthmus, Topography, Hinterland, Delta
3	16 -18	Continental Climate, Peninsula, Roaring Forties
4	1 - 2	Zero Degrees, International Date Line.
4	9	Eastern Hemisphere
6(b)	2 - 3	Tropical jungle, tundra
6(b)	7 - 9	Southern Hemisphere, port, port.
6(b)	15	Desert

Technical Terms : Sociological

Question	Item	Terms Included
3	6	Huntingdon's Theory
3	8 - 9	Cultural Heritage, Standard of Living
3	12 - 14	Aesthetic, Propaganda, Urban
8	1	Industrial
8	8 - 9	Delinquency, Strikes
8	13	Leisure
9	1 - 4	Minutes, Motion, Adoption, Amendment.

Technical Terms : Scientific

Question	Item	Terms Included
3	1	Isotherm
3	15	Barometric Pressure
6(b)	1	Barometric Pressure
8	12	Infectious Diseases

Generalizations for analysis are restricted to questions four and six. The extent and nature of the generalizations made in these questions can be more objectively determined than those made in other questions on the examination. Possible responses on the balance of the objective items are too restricted to allow any definite conclusions to be drawn.

Generalizations

Question	Items	Short Title
4	1	Measurement
4	11,12	Time Zones
4	6,8	Direction(map)
4	91 - 12	Hemispheres, directional
6(a)	1,2,3	Seasonal changes
6(a)	4	Wind Systems
6(a)	5	Rainfall Systems
6(b)	1	Minimum Air Pressure
6(b)	2	Temperature Zones
6(b)	2	Vegetation Zones - Tropical
6(b)	5,7,11,12,13	Commercial Productivity
6(b)	8,9	Commercial Shipping
6(b)	10,16	Commercial Productivity
6(b)	4,6	Mineral Areas
6(b)	15	Desert Areas
6(b)	9	Soluble Ores
6(b)	3	Vegetation Zones sub-arctic
6(b)	2,3,15	Vegetation Zones general

Table of Generalizations

Statement of the Generalization	Short Title	Item
1. Zero degrees longitude is a base, line arbitrarily selected for convenience, from which to measure standard time, and geographical position east and west.	Measurement	4(1)
2. Twelve hours difference in standard time is equivalent to 180° difference in geographical location, measured from east to west.	Time Zones	4 (11 - 12)
3. On a polar projection west is measured in a clockwise direction east in a counter-clockwise direction.	Direction	4 (6,8)
4. The earth is divided into two sets of hemispheres; the equator divides the north-south hemispheres, and the longitude 0° - 180° divides the east-west hemisphere. A hemisphere is one half of the earth's surface.	Direction, Hemispheres	(4)9 6(b)9

Statement of the Generalization	Short Title	Item
5. Seasonal changes depend upon the changing latitude over which the suns rays are vertical at noon. The northernmost latitude which receives vertical rays is reached on June 21st, and the southern most latitude is reached on December 22nd.	Seasonal Changes	6(a) 1 2 3
6. Winds blow into the area of maximum temperature from the north and the south. These winds are deflected into north-east and south-east winds by the earth's rotation.	Wind Systems	6(a) 4
7. Rainfall is caused by the condensation from warm moist air which rises, or is forced to rise, and is rapidly cooled. Rising air is found over the area of maximum temperature.	Rainfall Systems	6(a) 5

Statement of the Generalization	Short Title	Item
<p>8. The minimum barometric pressure is found where the altitude above sea-level is maximum.</p>	<p>Minimum Pressure</p>	<p>6(b) 1</p>
<p>9. The tropics is an area bounded on the north by the tropic of Cancer, and on the south by the tropic of Capricorn. There tropics lie $23\frac{1}{2}$ degrees north and south of the equator.</p>	<p>Temperature Zones</p>	<p>6(b) 2</p>
<p>10. A jungle is produced by a combination of heat, heavy and sustained rainfall, and fertile soil.</p>	<p>Vegetation Zones Tropical</p>	<p>6(b) 2</p>
<p>11. A tundra is produced by a combination of severe cold and low precipitation, with a brief but extreme summer season.</p>	<p>Vegetation Zones Sub-arctic</p>	<p>6(b) 3</p>

Statement of the Generalization	Short Title	Item
12. Vegetation requires the following conditions for survival in any zone, fertile soil, year around rainfall, a summer season for growth, a moderate winter.	Vegetation Zones General	6(b) 2 3
13. Tropical areas require the following conditions for commercial productivity and trade: accessibility, moderate climate, freedom from disease.	Commercial Productivity Tropical	6(b) 5 7 11 12 13
14. A port must be accessible to ocean-borne vessels.	Commercial Shipping	6(b) 8 9
15. Temperate zone agriculture requires fertile soil, rainfall in excess of 10 inches yearly, accessibility to transportation facilities, and healthful climate.	Commercial Productivity Temperate	6(b) 10 16

Statement of the Generalization	Short Title	Item
16. Mineral deposits are associated with mountain ranges, or remnants of earlier rock formations.	Mineral Areas	6(b) 4 6
17. A desert is an area shielded from moisture bearing winds, where rainfall is less than 5 inches yearly.	Desert Areas	6(b) 15
18. Nitrate, being highly soluble can accumulate as a natural deposit in an area of extremely low precipitation.	Soluble Ores	6(b) 9

Note: Statements of generalizations are expressed in the simplest possible terms, at the Grade nine level.

APPENDIX V

Table of Incorrect, but Acceptable, Responses

Factual Material

Question	Item	Acceptable responses
4	1	F H R S T
4	11-12	A M misplaced but
6(b)	combined	180° apart
	1	B E I P R
6(b)	2	J K N M R
6(b)	3	V (tundra); C E F I
6(b)	4	(Asia)
6(b)	5	G M R J
6(b)	7	J
6(b)	8	N S R
6(b)	10	A T
6(b)	11	H L S
6(b)	12	K R
6(b)	13	K M
6(b)	15	M R
6(b)	16	C I L P D
6(b)	17	I L O
6(b)	18	B E H
6(b)	19	S
6(b)		A B L

Factual Material (continued)

<u>Question</u>	<u>Item</u>	<u>Acceptable responses</u>
8	Col.A - E	War
8	Col.A - E	Freedom of religion
8	Col.A - G	Delinquency
8	Col.A - B	War
8	Col.A - F	Medical services to out- lying areas.
8	Col.A - B	Racial hatred.

Note: Question III The following items from column A were not applicable to items in column B. The correct response for these items was found by subtracting the number of times the items were used as a response from 300.

Items: B C K O

Question VIII The following items in column B were not applicable to items in column A. The correct response for these items were obtained by subtracting the number of times they were used as a response from 300.

Items; 5 7 8 10 13.

Technical Terms

Question	Item	Acceptable Responses
4	9	S to F measured clockwise
6(b)	2	G J K L M N R
6(b)	2	K M R
6(b)	3	V
6(b)	7	G H K L N O P Q
6(b)	8	A B P T
6(b)	9	A B T U

Generalizations

Generalization	Item	Acceptable Responses
1	4(1)	A X L
2	4(11-12)	A-M; misplaced but 180° apart
3	4(6)	E F G H I
3	4(8)	S T U V
4	4(9)	S to F inclusive measured clockwise
4	6(b)9	all areas south of the equator
5	6(a)1	none
5	6(a)2	none
5	6(a)3	none
6	6(a)4	none
7	6(a)5	none
8	6(b)1	P R C (high mountain ranges)
9	6(b)2	All areas between tropics
10	6(b)2	R M K
11	6(b)3	V
12	6(b)2	positive, R M K J N
12	6(b)3	negative V
12	6(b)15	negative C L P

Generalizations (continued)

Generalization	Item	Acceptable Responses
13	6(b)5	R K
13	6(b)7	N M R neglecting southern hemisphere
13	6(b)11	R N K
13	6(b)12	M N K
13	6(b)13	M N R
14	6(b)8	A B P T
14	6(b)9	A B T U
15	6(b)10	H L S
15	6(b)16	L O S
16	6(b)4	V R G M
16	6(b)6	none
17	6(b)15	C L P
18	6(b)9	G

APPENDIX VI

The following table shows the average mark per question as given by the sub-examiners. The averages are shown to the nearest half mark.

LIX - Average Mark Attained on Each Question
Contained in 1948 Examination Paper

Question	Average	Number of Correct Responses
1	6.5	11
2	1.5	3
3	3.5	7
4	2.0	4
5	5.0	essay
6(a)	2.5	3 (no half marks)
6(b)	3.5	7
7	2.0	2
8	4.5	5 (no half marks)
9	3.0	3
10	5.0	10
11	9.0	essay
<hr/>		
Total	48.0	
Less spelling	<u>5.0</u>	
Net	43.0	

The representative paper is constructed from the most frequently correct responses as tabulated in Appendix II. The first eleven items listed for Question I are shown as correct, etc.

Question I

Bell E	Stephenson D	Hargreaves A
Morse E	McCormick B	or
Wright D	Whitney A	Fulton D
Marconi E	Saunders C	
Burbank C	Shaftesbury F	

Question II

Burmese independence	7
Ceylon's dominion status	7
Lend lease instituted	7

Question III

The following correctly matched with the appropriate definition:

Representative Government	Hinterland
Standard of Living	Delta
Propaganda	Franchise
Topography	

Question IV

The following properly located with respect to the appropriate meridian:

Great Bear Lake

Norway

Iceland

Gulf of St. Lawrence

Question V

Essay : see Chapter VIII

Question VI(a)

The following properly identified:

The point where the sun is directly overhead on December 22nd.

The direction of the prevailing winds on September 23rd.

The point where the sun is directly overhead on March 21st.

Question VI(b)

The following areas correctly recognized on the map provided:

A place where uranium ore is mined V.

A country exporting silk and manufactured cotton E

An area famous for coffee N

A port shipping salmon and halibut U

A country exporting steel, textiles and pottery A

The dominion of Pakistan I

An area of tundra in Asia D

Question VII

Two arguments satisfactorily given:

Permanent military union of Britain and America is not possible because others, especially Russia, would object that the British and Americans were attempting domination of world affairs.

Complete disarmament is desirable because without armaments there can be no war.

Question VIII

The following associations correctly made:

<u>Problem</u>	<u>Current News Item</u>
Control of infective diseases.	Death rate - whooping cough
Strikes	Coal shortage in West
Medical services to outlying areas.	Canon Turner's accident
International relations	No peace treaty signed
Real Wages	Cost of Living Index 146

Question IX

The following details of procedure in conducting a meeting properly identified:

1. Reading of the minutes of the last meeting is the first item of business. (C)
2. Following the reading the chairman says, "Are there any corrections or additions to the minutes?" (D)
3. When a motion has been seconded and then another member moves a change in the wording of it, such a change is called an amendment. (B)

Question X

The following photographs correctly identified
by matching with the name provided:

Barbara Ann Scott	K
Princess Elizabeth	B
Mrs. Eleanor Roosevelt	C
George VI	O
Chiang Kai Shek	H
Stalin	E
John L. Lewis	T
Truman	Q
Pope Pius	A
Eisenhower	L

Note: Other correct responses were given, but
these were not credited by examiner because
only the first 14 responses were checked.

Question XI

Essay: See Chapter VIII.

TABLE 1

Summary of the results of the analysis of variance for the different factors

Source of variation

1	Between groups
2	Within groups
3	Total
4	Between groups
5	Within groups
6	Total
7	Between groups
8	Within groups
9	Total
10	Between groups
11	Within groups
12	Total
13	Between groups
14	Within groups
15	Total

For the purpose of this analysis, the data were grouped into three main categories

namely, the results of the analysis of variance for the different factors

and the results of the analysis of variance for the different factors

RESULTS

The results of the analysis of variance for the different factors

APPENDIX VII

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HIGH SCHOOL ENTRANCE EXAMINATION BOARD

DEPARTMENTAL EXAMINATIONS, 1948

GRADE IX

SOCIAL STUDIES

Time—2½ hours.

Note—The total time allowed for this paper is TWO AND ONE-HALF hours. Distribute this time to best advantage, reading the paper, answering the questions and reviewing the work already done. Do not spend too much time on any one question.

Do not write your name on this booklet.

All your work, rough or finished, must be done in this booklet. Spaces are provided in this booklet, labelled "For rough work" and "For finished work".

Rough work may be done in pencil; finished work must be done in ink.

QUESTIONS 5, 6, and 11 MUST BE ANSWERED AND YOU ARE TO ANSWER AS MANY MORE AS YOU CAN IN THE TIME ALLOWED.

CANDIDATE'S NUMBER

43 P.R.

(For the use of sub-examiners only)

Values

- 10 1. The following people have contributed to our culture in various ways. Choose any TWENTY and beside the name place the letter corresponding to the area in which they made their greatest contribution.

- (A) Labour-saving devices in manufacturing cloth goods.
 (B) Labour-saving devices in connection with farming.
 (C) Improvement in breeds of farm animals or plants.
 (D) Improvements in transportation.
 (E) Improvements in transmission of messages.
 (F) Improvements in social legislation or social reform.
 (G) Improvements in medicine and surgery.

Robert Fulton	(...G...) X
Saunders	(...A...) X
Wilberforce	(...B...) X
Elizabeth Fry	(...F...) ✓
McAdam	(...B...) X
Robert Owen	(...D...) X
Wilbur and Orville Wright	(...D...) ✓
Samuel Crompton	(...A...) ✓
John Howard	(...A...) X
Simpson	(...A...) X
Robert Bakewell	(...B...) X
James Hargreaves	(...C...) X
Fleming	(...B...) X
Lord Shaftesbury	(...F...) ✓
Eli Whitney	(...D...) ✓
Montgolfier	(...B...) X
George Stephenson	(...D...) ✓
de Sivrac	(...F...) X
de Forest	(...G...) X
Marconi	(...E...) X
Trevithick	(...D...) X
Jethro Tull	(...F...) X
Kay	(...G...) X
Daimler	(...D...) X
Alexander Graham Bell	(...F...) X
McCormick	(...G...) X
Morse	(...F...) X
Luther Burbank	(...C...) X

34 X

Values

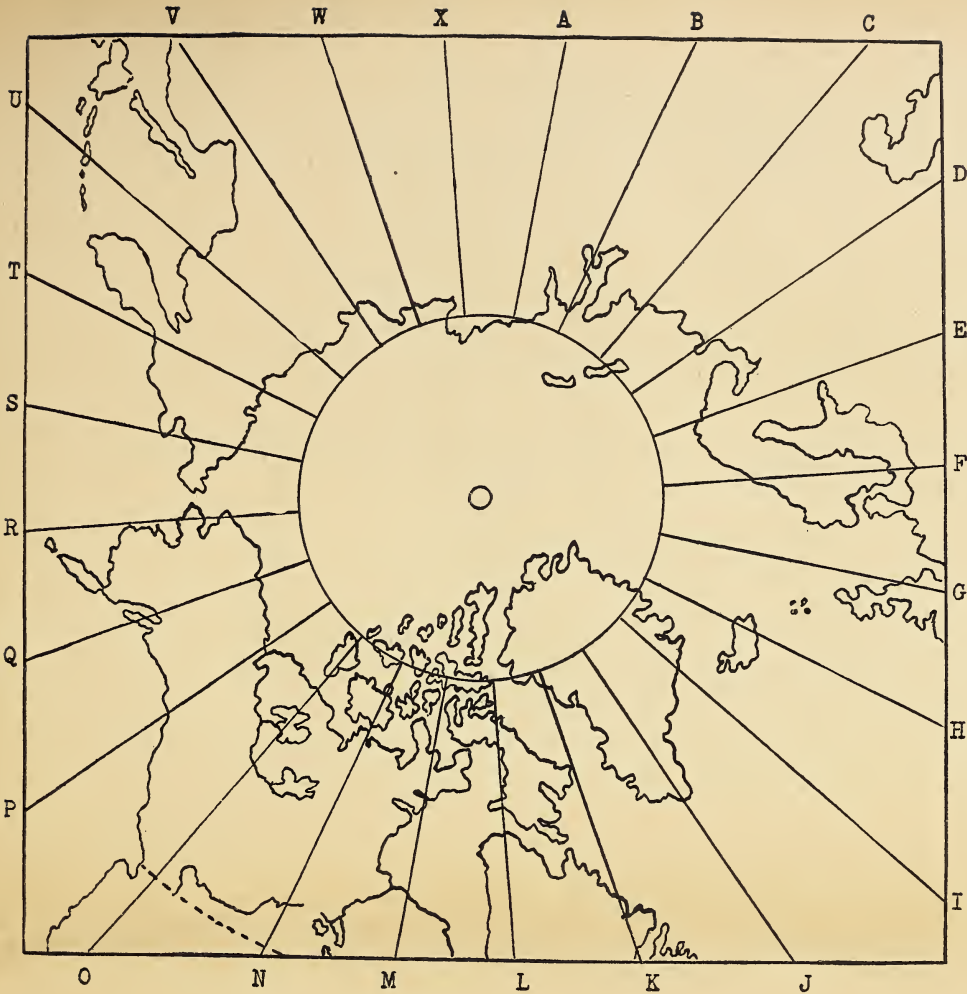
- 8 2. In the following you are asked to show your knowledge of the time element in Social Studies. In the left-hand column there are a number of periods well-known in Canadian history. In the right-hand column there are a number of events that happened outside of Canada. In the space provided beside each event place the number corresponding to the period of Canadian history shown in the left-hand column.

- | | |
|--|---|
| (1) From the time of Jacques Cartier until the end of French rule in Canada. | The Statute of Westminster was signed. (.....) X |
| (2) From the end of French rule until the Union Act came into effect. | Great Reform Bill abolished the pocket boroughs in England. (2) ✓ |
| (3) From the Union Act until the B.N.A. Act came into effect. | The Atlantic Charter was signed. (.....) X |
| (4) From the B.N.A. Act until the completion of the C.P.R. from the Great Lakes to the west coast. | Women were given the franchise in England. (5) X |
| (5) From the completion of the C.P.R. to the beginning of the first world war. | Cromwell ruled without the king. (.....) X |
| (6) From the beginning of World War I until the beginning of World War II. | William of Orange chose his ministers from among the party having the majority in the House of Commons. (.....) X |
| (7) The period since the beginning of World War II. | The Munich agreement was signed. (.....) ✓ |
| | The Parliament Act was passed. (6) ✓ |
| | Charles II granted a charter to the Hudson's Bay Company. (1) ✓ |
| | Charles I claimed that he ruled by Divine Right. (.....) ✓ |
| | Burma secured her independence from the British Empire. (7) ✓ |
| | There was civil war in the United States. (.....) ✓ |
| | Robert Walpole became first Prime Minister of England. (.....) ✓ |
| | Ceylon became a part of the British Commonwealth. (.....) ✓ |
| | The United States instituted a policy of Lend-Lease. (3) X |
| | The United States government approved reciprocity with Canada, but Canada refused. (4) X |

Values

- 7 3. This question is designed to test your knowledge of some of the terms used in Social Studies. In the left-hand column there are a large number of terms. The meanings of SOME of these terms are given in the right-hand column. For each of these meanings, place the corresponding letter in the space provided at the extreme right.

(A) Delta	A line on a map connecting those places having the same temperature at a given time.	(.....C.....) X
(B) Barometric pressure		
(C) Continental climate	A neck of land connecting two bodies of land.	(.....E.....) X
(D) Cultural heritage		
(E) Aesthetic expression	Description of the surface features of a given tract of country.	(.....Q.....) ✓
(F) Franchise		
(G) Hinterland	Territory back of a river or coastal region.	(.....G.....) ✓
(H) Huntington's theory	A deposit of sand or soil formed at the mouth of a river.	(.....K.....) X
(I) Isotherm		
(J) Isthmus	Quick changes of several degrees range in temperature increase the efficiency of physical and mental work.	(.....B.....) X
(K) Peninsula		
(L) Propaganda	A relationship between two nations in which each grants the other special advantages in trade.	(.....F.....) X
(M) Reciprocity		
(N) Representative government	That which is accumulated in the past and handed down by our ancestors.	(.....A.....) X
(O) Roaring forties		
(P) Standard of living	The levels of comfort below which the people of a country do not go.	(.....P.....) ✓
(Q) Topography		
(R) Urban	The institution whereby members of the legislature are elected by the people to act on the latter's behalf.	(.....M.....) X
	The constitutional right to vote.	(.....N.....) X
	Response to the beautiful in nature or art.	(.....D.....) X
	An organized movement for spreading a given opinion or doctrine.	(.....L.....) ✓
	A compact community in which most of the people are engaged in industry or commerce.	(.....O.....) X



Values

- 6 4. The map above is called an Azimuthal Equidistant Polar Projection. The tiny circle in the centre represents the North Pole. The larger circle around it is 75 degrees N. Lat. Letters have been placed at the end of each line (meridian) pointing towards the centre of the map. You are asked to place some of these letters in the appropriate spaces below.

The meridian which is zero degrees longitude. (A)

The meridian along which the International Date Line goes. (P)

The meridian which cuts through Great Bear Lake. (O)

The meridian which passes through Norway. (F)

The meridian that goes through the northernmost part of Canadian territory. (N)

The first meridian west of the Caspian Sea. (U)

The meridian that goes through Iceland. (H)

The first meridian east of Bering Strait. (R)

The meridian in the eastern hemisphere which would be very close to the shortest route between Montreal and Singapore. (V)

The meridian that passes through the Gulf of St. Lawrence. (K)

The meridian on which it will be 6 a.m. when it is noon in London, England. (P)

The meridian on which it will be 6 p.m. when it is noon in London, England. (C)

[OVER]

Values

10 5. (To be answered by all students.)

Write a paragraph of not less than 100 words on ONE of the following topics:

What the school does for modern society.

OR

How music helps to break down racial prejudice.

OR

Why a modern community should provide opportunities for expression through drama.

OR

The importance of religious faith in the attainment of individual happiness.

FOR ROUGH WORK

(No marks for work in this space)

What the school does for modern society.

In the old days in England children had to work in the mines when they were very small, and they didn't learn much in the way of schooling. When they grew up they didn't have much of a chance to get up in the world, and so, they would make money by making money, and so they would make money for food and clothing. They

FOR FINISHED WORK

What The School does For Modern Society.

In the early days in England children had to start to work in the mines when they were very small, and they didn't have much in the way of schooling. When they grew up they didn't have much of a chance to get up in the world, and so, what little money they made, was used for food, clothing, and shelter.

To-day however, every child must go to school until a certain age. They learn how to read, write, add, and most of all to be a good citizen. The schools are giving other opportunities for learning different languages, participating in sports, learning to act, and many other things. Children going to school learn to be helpful and tidy, co-operate with others and become a better citizen to their country.



Values

6. (To be answered by all students.)

5

- (a) There are three ships shown in the Atlantic Ocean. Each ship has a number. In answering the following questions place the appropriate number in the spaces provided.

In which ship would the sun be directly overhead at noon of June 21? (.....2.....) X

For which ship would there be the fewest hours of daylight on December 22? (.....3.....) X

For which ship would the sun be directly overhead on March 21? (.....1.....) X

On September 23 which ship should expect a wind from the South East? (.....1.....) X

On September 23 which ship should expect the most rain? (.....2.....) ✓

10

- (b) Locate the letters on the map referring to the following products or places and place them in the space provided.

A place on the land surface where the barometric pressure is the lowest in the world. (.....B.....) X

An area of tropical jungle. (.....O.....) X

An area of tundra in Asia. (.....I.....) X

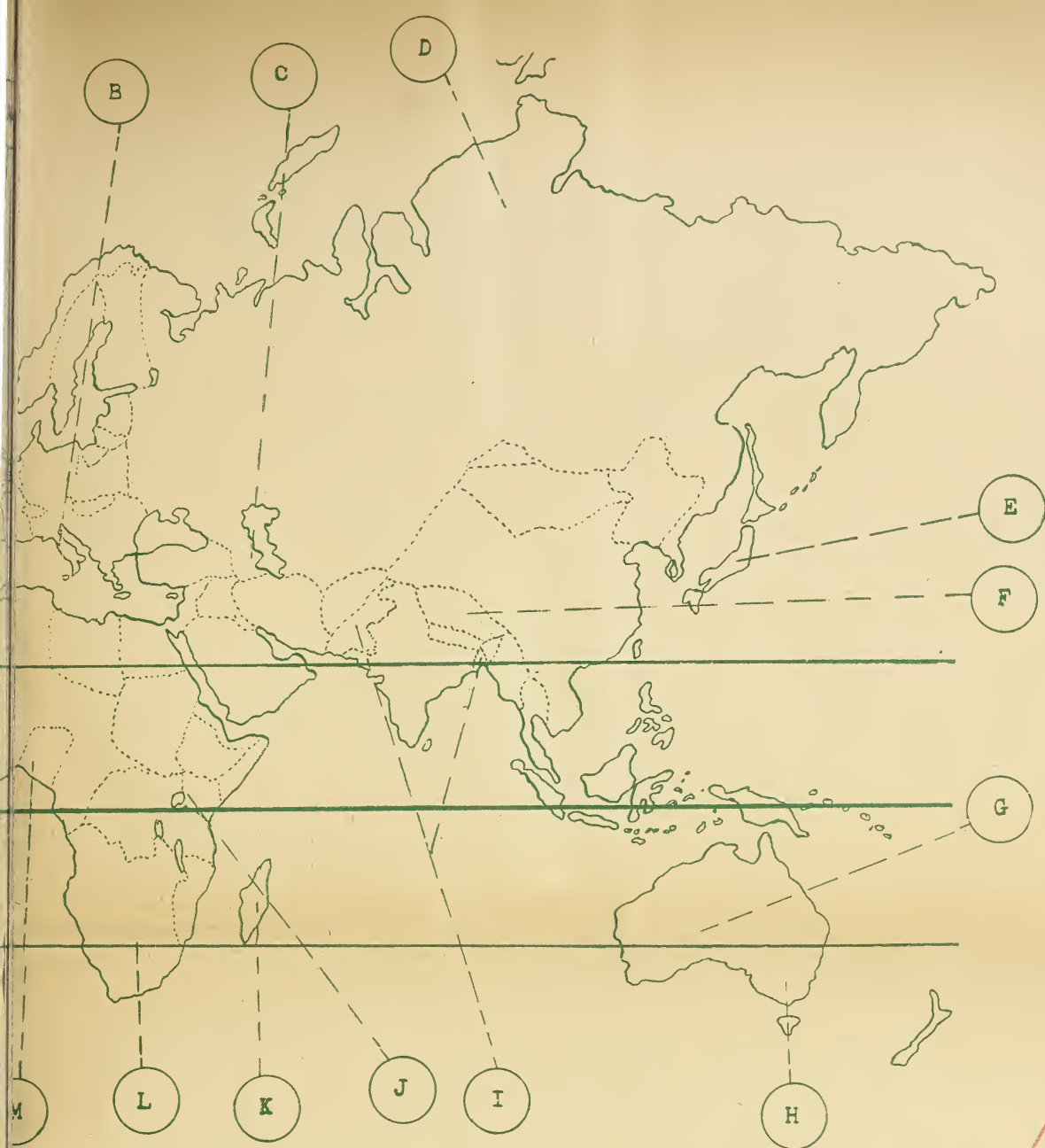
A great gold and diamond producing area. (.....M.....) X

An area famous for coffee. (.....N.....) ✓

12

1

10



A place where uranium ore is mined.

(U)

An area in the southern hemisphere famous for sugar cane, cotton and ivory.

(J)

A port which ships great quantities of salmon and halibut.

(I)

A port famous for nitrates.

(U)

An area which supports great numbers of beef cattle.

(S)

An area from which palm oil is obtained.

(I)

A region famous for bananas.

(R)

A place from which we obtain graphite and vanilla.

(K)

A country from which we get olive oil.

(P)

A large desert area.

(G)

An area producing large quantities of wool and wheat.

(H)

A country which exports steel goods, textiles and pottery.

(A)

The location of the Baku oil fields.

(J)

A country that exports silk and manufactured cotton goods.

(E)

The Dominion of Pakistan

(F)

Values

- 8 7. Since World War II there have been many suggestions as to how future wars may be avoided. Below are four of these proposals. Beneath each proposal list ONE argument for it and ONE argument against it.

- (a) That an international police force be established to keep the peace.

For: If an international police force is established then ~~there~~ ^{different} wars might not break out between ^{countries}

Against: on the other hand you would have to have different ~~countries~~ ^{to keep peace} together in the force

- (b) Through U.N.E.S.C.O. teach international understanding and a sympathetic viewpoint towards other people.

For: If the U.N.E.S.C.O. teaches people the understanding of other people there may be peace among nations

Against: The U.N.E.S.C.O. would have to have somebody who understand other people to teach it to them

- (c) Complete disarmament of all nations.

For: If all the nations were disarmed there wouldn't be any war

Against: Some nations might ~~lose~~ ^{lose} weapons and claim the world for its own

- (d) The establishment of a permanent military union of Britain and the United States to enforce order in the world.

For: If the military union of Britain and the U.S. enforced order in the world there would be protection from

Against: Other nations might disapprove and say Britain and the U.S. were in power over the world.

Values

- 8 8. In column "A" there is a list of events reported in the newspapers during the year. Beside each is a space in which you are to write the letter beside the unsolved social problem in column "B" most closely associated with that event.

A	B
(A) In January the Canadian Government announced the cost of living index was 146.	Dependence of industrial society on transportation. (.....C.....) ✓
(B) The Council of Foreign Ministers could not come to any agreement on the terms of peace treaties with Germany and Austria.	International relations. (.....B.....) ✓
(C) A snowstorm blanketed New York City.	Freedom of Speech. (.....C.....) ✓
(D) Canon Turner was injured by a rifle bullet in the far North.	Real wages. (.....A.....) ✓
(E) The Jews and Arabs fire on each other in Palestine.	Freedom of Religion. (.....E.....) ✓
(F) Medical authorities report that the largest number of deaths among young children is caused by whooping cough.	Racial hatred. (.....) ✓
(G) Certain Hollywood writers were summoned to Washington to answer questions with regard to un-American activities.	Conservation of resources. (.....) ✓
(H) A serious coal shortage threatened western Canada last winter.	Delinquency. (.....) ✓
	Strikes. (.....H.....) ✓
	War. (.....) ✓
	Supplying medical services to out-lying areas. (.....D.....) ✓
	Control of infectious diseases. (.....F.....) ✓
	Use of leisure. (.....) ✓

- 5 9. The following is a question on parliamentary procedure as applied to the conduct of public meetings. For each sentence there are five possible completions lettered A, B, C, D, and E. Choose the best completion in each sentence and put the appropriate letter in the space provided.

The first item of a meeting should be (A) the report of a committee. (B) the financial report. (C) the reading of the minutes. (D) the discussion of old business. (E) the discussion of the most important business. (.....C.....) ✓

When an item of business needing a decision has been discussed, the chairman should immediately (A) call for someone to make a motion. (B) make a motion himself that will sum up the decision required. (C) call for a show of hands. (D) decide what the people in the meeting want to do. (E) pass on to the next item of business. (.....A.....) ✓

Immediately after the reading of the minutes the chairman should say (A) "Will someone move the adoption of the minutes?" (B) "Are these minutes satisfactory?" (C) "I declare these minutes adopted as read." (D) "Are there any corrections or additions to the minutes?" (E) "The minutes stand approved as read." (.....D.....) ✓

When a motion has been seconded and then another member moves a change in the wording of it, such change is called (A) a sub-motion. (B) an amendment. (C) an adjournment. (D) an adoption. (E) a prorogue. (.....B.....) ✓

In conducting a meeting the chairman should (A) have something definite to say on each item. (B) participate freely in the discussion. (C) be prepared to summarize the statements of the others but say little else himself. (D) never participate in the discussion. (E) lead the discussion. (.....C.....) ✓

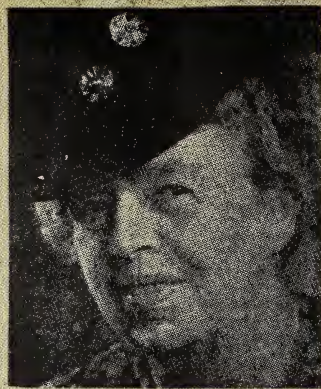
[OVER]



A



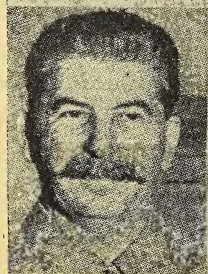
B



C



D



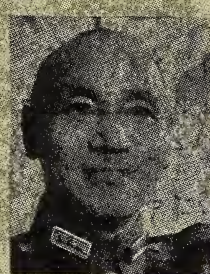
E



F



G



H



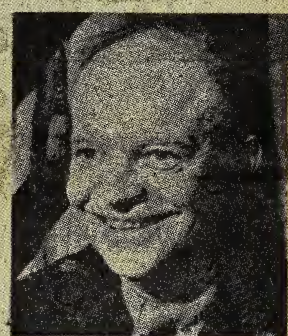
I



J



K



L



M



N



O



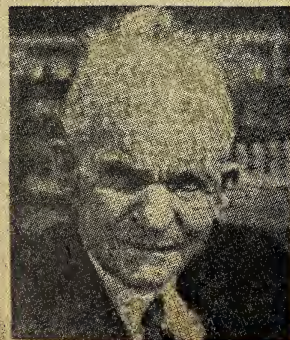
P



Q



R



S



T

Values

- 7 10. On the opposite page are some pictures of men and women prominent in the news during the last year. Choose fourteen whom you can identify and place the letters in the spaces provided beside the names ON THIS PAGE.

Attlee (D) ✓

Chiang Kai Shek (H) ✓

de Gaulle (F) ✓

Dewey (J) ✓

Eisenhower (L) ✓

Henry Ford (S) ✓

George VI (O) ✓

Barbara Ann Scott (K) ✓

Mrs. Eleanor Roosevelt (C) ✓

Jinnah (I) ✓

John L. Lewis (T) ✓

Mackenzie King (N) ✓

Marshall (R) ✓

Molotoff (G) ✓

Princess Elizabeth (B) ✓

Ernest C. Manning (P) ✓

Pope Pius (A) ✓

Stalin (E) ✓

Truman (Q) ✓

Henry Wallace (M) ✓

[OVER]

Values

16 11. (To be answered by all students.)

In the space indicated, write a three-paragraph essay of 150 to 175 words on ONE of the topics listed below. Follow the plan set out below the list of topics. Express yourself in carefully chosen English.

How modern conveniences are relieving women from much of the drudgery of housework.

Recreation for the whole family.

Health services in Alberta.

Title

Paragraph 1 should describe conditions as they were in the past.

Paragraph 2 should show the situation as it is now because men have tried to attack their social problems intelligently.

Paragraph 3 should suggest the possibilities for further improvement in social living.

FOR ROUGH WORK

(No marks for work in this space)

How Modern Conveniences are
Relieving Women from Much of
the Drudgery of Housework.

When I think of what our fore-
fathers did, especially all they had
to do, there is no wonder, really,
and I think in those days one of
the heaviest burdens a woman
was doing housework, especially
wash days. They would have
to heat the water in a large kettle
over the fire, make ^{the} soap to
get the clothes clean, and then
rub them with their hands. When
it came to wringing they used
a long flat bar and a piece
of wood shaped like a rolling
pin, and would roll the wood
over the cloth to wring it.

FOR FINISHED WORK

How Modern Conveniences are
Relieving Women From Much of The
Drudgery of Housework.

When pioneers first came to Canada, probably all they had with them were a few personal belongings and native treasures. In those days, one of the hardest jobs for women was doing housework, especially wash days. First, they would heat the water in a large kettle, make the soap to get the clothes clean, and then rub them with their hands. When it came to ironing, they used a long flat board and a piece of wood shaped like a rolling pin, and would roll the wood over the clothes until they were pressed. Other things they had to do was to bring water from the well, cook food in home-made ovens, and make cloth.

To-day however, science has come a long way from the old days. Gas stoves to cook the food, refrigerators to preserve the food, water right from the tap, sewing machines and many other inventions have helped the house-wife.

In the country there is still a lot to be done to save more time for the house-wife, as they haven't the machines the city home have but gradually, more and more time is considered to relieve the drudgery of housework.

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